

Time and History in Prehistory

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Edited by Stella Souvatzi,
Adnan Baysal and Emma L. Baysal

Time *and* *History* *in* Prehistory



ROUTLEDGE


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Time and *History* in Prehistory



ROUTLEDGE


Time and History in Prehistory

Time and History in Prehistory explores the many processes through which time and history are conceptualized and constructed, challenging the perception of prehistoric societies as ahistorical. Drawing equally on contemporary theory and illustrative case studies, and firmly rooted in material evidence, this book rearticulates concepts of time and history, questions the kind of narratives to be written about the past and underlines the fundamentally historical nature of prehistory.

From a range of multi-disciplinary perspectives, the authors of this volume address the scales at which archaeological evidence and narrative are interwoven, from a single day to deep history and from a solitary pot to a complete city. In doing so, they argue the need for a multi-scalar approach to prehistoric data that allows for the interplay between short and long term, and for analytical units that encourage us to move continuously between scales.

The growing interest in time and history in archaeology and across a wide range of disciplines concerned with human action and the human past highlights that these are exceptionally active fields. By juxtaposing varied viewpoints, this volume bridges gaps in narrative, finds a place for inclusive histories and makes clear the benefit of integrative and interdisciplinary approaches, including different disciplines and types of data.

Stella Souvatzi is Adjunct Professor of Archaeology at the Hellenic Open University. She received her PhD from the University of Cambridge in 2000 and her BA and MA degrees from the University of Athens. Her research focuses on the Neolithic archaeology of Greece and the eastern Mediterranean, the archaeology of household, theory of archaeology and anthropology, and cultural heritage and identity. She is the author of *A Social Archaeology of Households in Neolithic Greece: An Anthropological Approach* (2008) and co-editor of *Space and Time in Mediterranean Prehistory* (2014).

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Edited by Stella Souvatzi, Adnan Baysal and Emma L. Baysal

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Contributors

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Stella Souvatzi is Adjunct Professor of Archaeology at the Hellenic Open University. She received her PhD from the University of Cambridge in 2000 and her BA and MA degrees from the University of Athens. Her research focuses on the Neolithic archaeology of Greece and the eastern Mediterranean, the archaeology of household, theory of archaeology and anthropology, and cultural heritage and identity. She has taught at universities in Britain, Greece, Cyprus and Turkey, has conducted archaeological fieldwork all over Greece and has held senior research fellowships in Turkey and Germany. She is the author of *A Social Archaeology of Households in Neolithic Greece: An*

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Preface

This volume addresses time and history first and foremost as analytical issues potentially interrelated but clearly different, which call for clarification not only at the level of definition but also theoretical approach and methodological applicability. It therefore draws attention to the many processes through which time and history are conceptualized and constructed both academically in archaeology and its related disciplines and socially within past societies, drawing equally on contemporary theory and on case studies.

The need for such a volume was identified from the following observations. The issues of time and history are increasingly recognized as fundamental in social analysis and theoretical discourse across a range of disciplines. However, this has not resulted in the emergence of a truly integrative and coherent framework for time and much less for history, including answering fundamental questions such as: what is history, what is the difference between time and history, and what is the divide between history and 'pre'-history. Archaeology in particular, although in a privileged position to add a historical perspective to the entire human past, is still struggling to find a coherent way to add that perspective. Temporal/chronological constructs, including the ones that enforce the divide between history and prehistory, continue to structure archaeological thought at a variety of scales and there isn't as yet a consistent articulation of the history of prehistory.

The origins of the book lie in 2015, when the three editors found themselves at the Department of Archaeology, Trakya University, Edirne, through different new positions (Stella Souvatzi as a TÜBİTAK Visiting Assistant Professor, Adnan Baysal and Emma L. Baysal as Assistant Professors) and decided to face up to the challenge of finding a perspective on prehistory as history. The chapters, all original contributions commissioned from invited scholars not only in archaeology, but also in anthropology, history and sociology, rearticulate the concepts of time and history and offer perspectives on a range of key themes, including the constitution and structure of history; alternative ways to think about the temporal structure of the archaeological

record and how to translate this record into historical evidence; the intersection of the temporal with the spatial; history-making and time or historical consciousness in past societies; and the importance of a multi-scalar approach that will allow for the interplay between short-term and long-term processes.

As a whole, in questioning the scales and conceptions of archaeological time, the volume advocates an holistic approach to using all notions and evidence that can elucidate how societies functioned and changed; questions the kind of narratives to be written about the past; and ultimately, calls for a more historic outlook on prehistoric societies, breaking down the conflation of *prehistoric* with *ahistoric* and concluding that the term 'prehistory' is seriously misleading. Its ultimate ambition is to provide an important resource for reading, further research and above all, for interdisciplinary dialogue and exchange.

We wish to thank the contributors to this volume for the enthusiasm, time and effort they invested in preparing their chapters. We are also grateful to the three anonymous reviewers for their constructive comments on an earlier version of the volume. Special personal thanks to Bob Chapman and Bernard Knapp for their immediate response for feedback and suggestions on our editors' chapter at very short notice! Finally, we are happy to thank Routledge, and especially our editor, Matt Gibbons, for placing his faith in our book from the start and for his patience and understanding throughout the preparation process.

Is there *pre*-history?

Stella Souvatzi, Adnan Baysal and Emma L. Baysal

History

Human history is much more than just an irreversible sequence of events moving in a direction or towards some goal, a series of causes and effects, a linear narrative of ‘progress’ or the analysis of written records. History is a process through which people construct their relations to each other and their understandings of the world in diverse cultural and social contexts and the multiple scales of space and time at which this happens; an outcome of human agency and “an awareness that social relations are shaped by individual or collective action” (Gosden and Lock 1998: 5); a mode of structuring time; and a meaningful way for people to relate past, present and future and to make sense of this relationship.

History is much deeper in time than the temporally shallow period since the emergence of (systematic) writing in the fourth millennium BCE, traditionally associated with the emergence of states and ‘complex’ societies and commonly considered as the starting point of ordered human progress. The equation of history with written records, or the notion of history as textual representation alone, not only devalues all other types of historical evidence, but it also dismisses the rich complexity and diversity of hundreds of thousands of years of human history, reducing it to the last few millennia. It also disregards the partiality and incompleteness that may be involved in written evidence (*cf.* Bayliss and Whittle, this volume). Inextricably bound up in people’s actions and interactions, history extends well beyond written records to the very first human societies. It is embedded in human existence and it is closely intertwined with the entire presence of humankind. There is no society without history. As the archaeologist Julia Hendon (2010: 17) succinctly puts it, history is universal but culturally constructed; that is, *all* societies have a sense of history; it is how they define the concept that differs.

Equally problematic is the notion of history as directional, teleological and goal-directed and as “defined by the laws governing the patterns of progress” (Smail and Shryock 2013: 717), a progress equated, moreover, with social complexity as inequality or hierarchy and with technological advancement. This is a Eurocentric model for thinking about history that involves prejudices stemming from 19th-century metaphors and the Victorian conceptualizations of time as linear progression. Coupled with the emergence in the 20th century of neo-evolutionism, functionalism, positivism and determinism, these views have led, inevitably, to a series of false dichotomies: modern vs. traditional, and dynamic vs. static societies; history vs. myth or memory (e.g. see critiques in Chapman 2014; Gosden and Lock 1998; Hendon 2010: 14–18; Schmidt, this volume); subject vs. object; culture vs. agency and so on. Clearly, there are severe limitations in using such top-down and ahistorical perspectives to develop a comprehensive history of past events. Apart from disregarding historical context, they effectively dismiss non-Western societies as being not just outside history but incapable of progress. Unlike the assumptions of such perspectives, no society just exists outside history, nor is history something that happens somewhere outside societies and to which societies merely respond.

History is a polysemic and encompassing concept, susceptible to multiple understandings, expressed in various ways and taking various forms. As Crossland (2015: 19–20) epitomizes it, by ‘history’ we can mean all kinds of historical sources, including oral histories, remembering over time, national heritage and archaeological finds; the historical narratives or how the past is reconstructed; as well as ‘disappeared’ past events, acts, broader practices, beliefs and processes, mediated through material traces. We also use the term ‘history’ to discuss a plethora of intangible things such as the development of a social phenomenon, ideas or thought (e.g. ‘history of religion’, ‘history of philosophy’) or even to narrate daily events and to commemorate personal lived experiences.

History therefore is a fundamental subject of research across a wide range of disciplines concerned with human action and the human past, notably archaeology, history and anthropology, but also philosophy, sociology, human geography and philology among others. Strangely however, history also is a “fragmented subject” (Shryock and Smail 2011a: 3) when it comes to disciplinary co-operation and the unbounded flow of intellectual knowledge (cf. Gamble 2014: 2; Hann 2012: 27–31; also Corfield, and Watkins, this volume). After the postmodernist critiques in the 1980s, and particularly since the 2000s, a new interest in history has emerged in archaeology and its related disciplines, with renewed coverage and self-reflexive criticisms, stressing the relational character of human history, rejecting dualisms and exploring

theoretically diverse interpretative schemes (e.g. Corfield 2007; Evans 1997; Gaddis 2002; Hodder 2012; Robb and Pauketat 2013b; Shryock and Smail 2011b; Smail and Shryock 2013; Taylor 2008). However, this epistemological shift has not brought archaeology, anthropology and history together into an effective dialogue. Instead, the flow between the three disciplines continues to be one way: while archaeology has benefited from ideas of anthropology and history repeatedly over the years, anthropology and history continue to pay limited attention to archaeological scholarship, despite regular efforts to redress the balance (e.g. Corfield, this volume; Garrow and Yarrow 2010; Gosden 1999; Hann 2012; Shankland 2012). This is surprising, given not only archaeology's long disciplinary experience with deep time, but also the shared themes, concerns, theoretical influences and critiques in the three disciplines. It is even ironic given that in the conventional academia of the Western world and the institutional frameworks within which scholars study the past, archaeology is still commonly found in a single department or faculty with history and/or anthropology.

In archaeology, Knapp (1992a: 3–4) located the roots of the problem hindering interdisciplinary dialogue deep in the rift between the sciences and the humanities, developed in the 19th century (and further reinforced by the positivist, determinist and anti-historical tenets of the 'New Archaeology' in the 1960s and 1970s). More recently Gamble (2014: 1–3) has proposed that history, and particularly 'deep history', provides an ideal opportunity to move away from fission and towards fusion, inviting participation from archaeological, anthropological and historical research (*cf.* "Big History project" in Corfield, this volume).

In anthropology, despite the "rediscovery of history" (Robb and Pauketat 2013b: 7) since the 1950s, it is still argued that the continuing anthropological presentism and functionalism flattens the past into the present (e.g. Filippucci 2010: 70, 72). The relationship between the past and the present has always been a point of debate between anthropologists and archaeologists (e.g. Adam and Kemp, this volume; Feuchtwang and Rowlands 2010; Gosden 1999: 167–171; Ingold 1983). Ingold (1983: 5) argued that a major obstacle to an integration of archaeological and anthropological approaches lies in their embodiment of contrary notions of time, i.e. long vs. short term, and linear vs. cyclical time (also Shryock and Smail 2011a: 3–4; but see Lucas 2015; Olivier 2011; and Schmidt, this volume for alternative archaeological approaches to time).

More surprising is that a similar flattening of the past seems to occur within the discipline of history. Smail and Shryock (2013: 709; *cf.* Corfield, this volume; Guldi and Armitage 2014: 50, 59–60, 87) remark that historical research has narrowed dramatically in scope over the past few decades,

concentrating in the recent past and in ‘modern’ times, i.e. in colonial and postcolonial societies, to an extent that modernity seems to have become the “key concept for general history”. Two consequences of this are the present loss of history’s ability to think comparatively (Smail and Shryock 2013: 728) and its reluctance to formulate analytical frames for big history (Shryock and Smail 2011a: 4). As a result, the boundary between historical and archaeological knowledge persists, and was evident in the preparation of this volume, for which it was difficult to find historians as contributors. This preoccupation with the modern and the postmodern may ultimately be another face of the earlier Western models for history and the tendency to fragment the past into an historical and a non-historical age or to make all pre-modern cultures inconsequential. In turn, the idea that only moderns have history implies that contemporary analysts are the only ones capable of recognizing a (temporal) difference between past and present of events, and of preserving the knowledge of historical events (Hendon 2010: 16).

Finally, history, especially as representation and as long-term narratives, is an ideological thing, not an objective and politically neutral one. History studies themselves have not been shaped outside history; they have grown out of earlier perspectives and specific research agendas. A consideration of this kind of history is important for a fuller understanding of the tendency to divide the past into history and ‘pre-history’ and for finally overcoming this divide.

Pre-history

As editors of this volume and authors of this chapter we all three identify as prehistorians and archaeologists. In so doing we acknowledge that we occupy a particular academic space and generally operate within a defined structure of the distant human past. The development of this construction of the past lies with those who came before us; we have walked into a pre-existing framework of thought about time and space. Taken at face value the use of the word ‘prehistory’, according to its dictionary definition, implies strictly the time before writing. To understand the discipline in which we work – indeed to question the very nature of the field – is to think about prehistory as an opposition. *Pre-history* as the time when history wasn’t, or as Smail and Shryock (2013: 711) describe, “The ‘pre’ is a shadow cast by modern things, a space of simplified contrasts that is noticeable yet encourages inattention”.

The coining of the term prehistory to mean the period before the appearance of a written record by Daniel Wilson in 1851 came with the caution that there was a significant difference between understanding a culture from material

culture or approaching it via written records (Trigger 1989: 83). The beginnings of the use of the term prehistory lie in the beginning of our understanding of deep time in the early to mid-19th century (Taylor 2008: 2) that led to “a profound change of consciousness” and “a conceptual innovation that functioned as a protective barrier between remote antiquity and a set of scholarly techniques that was applicable only to a recent sliver of the human past” (Shryock *et al.* 2011: 21). Timescales caused a tension between the needs of the archaeological and the religious communities in the early days of prehistory’s use. Prehistory has since concertinaed outwards from a short Biblical chronology to the almost unimaginable lengths that we now know. The combination of the Three Age System and the term prehistory serve to equate the passage of time with major technological or social changes (see Hadji and Souvatzi 2014 for discussion of time and change) to support an evolutionary increase in complexity.

Just as prehistoric archaeology saw different processes of conception and development according to geographical region, such as the early advancement of the discipline in Scandinavia, Scotland and Switzerland (Trigger 1989: 84), prehistory is still affected by politics and academic ideology (Taylor 2008: 3). The scope of prehistory in a British or American University environment is not the same as it is, for instance, in a Turkish or German one, where protohistory intervenes at the beginning of the Bronze Age providing a ‘soft’ transition into history. Indeed both Clark (1977) and Scarre (2005; see also Taylor 2008 for discussion) also included early states, perhaps acknowledging the ephemeral nature of early written records. Approach, of course, relates in part to regional differences in the relationship between the defined stages of cultural development and the introduction of the written text – there is no single or consistent formula for this relationship – indeed a small geographical area may be host to both literate and highly historical groups and illiterate ‘others’ who are viewed from afar by those writing texts (see Linke 2017 for a description of how written records from two ‘sides’ tell different stories). Clark considers both the temporal and geographical dimensions, concluding that “almost the whole of human history is prehistoric in the technical sense” and that “vast territories remained ‘prehistoric’ until ‘discovered’ by western man in recent centuries” (Clark 1977: xvii). Nowhere has the differentiation between prehistoric archaeology and historical archaeology been more pronounced than in North America, where until recently the division was based on Native American and colonial European populations (see Lightfoot 1995: 202 for discussion).

Gamble (2014: 152) has recently argued strongly that the term ‘pre-history’ has had its day, citing Smail and Shryock’s (2013: 713) discussion of the nature of the ‘pre’ as something that is an endlessly movable and justifiable binary

used according to the interests of the individual scholar and the needs of modernity. Taylor (2008: 1) notes a possible distinction between archaeology and prehistory in which archaeology is the analytical tool and prehistory is the narrative constructed afterwards, making prehistory akin to history in its conception. In this case archaeologists must take more responsibility for their agency in the writing of the narrative and their understanding of scale, and move away from the “sterile distinction that is often drawn between object- and text-centred history” (Gamble 2014: 153).

The identification of prehistory as the time before writing implies that the arrival of writing fundamentally changed several variables in the human condition, primarily allowing people to record their lives, thoughts, victories and enmities. The matter of both which things were written down and which and whether those things have survived until the present – as Taylor (2008: 10) conceives it, whether works such as the *Iliad* were accepted or rejected and the degree to which Homer and the oral tradition effected the way in which they were written – is an important area of debate. Early written records deal with a very limited range of subject matter, and the origins of writing cause an awkward tension between the treatment of sites or levels with and without tablet archives (as discussed by Taylor 2008: 5). The beginning of history (and the end of prehistory) does not occur at the same time even within a single geographical location if the nature of early writing, levels of literacy and chosen subject matter are considered along with the degree to which our knowledge of the past is informed by those archives in contrast to the accompanying archaeological data (see Kulakoğlu and Kangal 2010 for the situation at Kanesh).

If history is fundamentally tied to written records, what does the history in prehistory mean? This inevitably changes according to the nature of the archaeological discipline. At its inception there was little data and the historical narrative of prehistory was based on a schematic development of human society, through social evolution that led towards civilization, with cities, social hierarchy and institutionalized organization and placing complexity in opposition to simplicity. This was, of necessity, a grand narrative, thought to find parallels in many different regions of the world and without any reference to the histories of individuals or communities but only ‘cultures’ (for discussion see Sherratt 1995 and for examples Johnson and Earle 1987; White 1959; Upham 1990).

Our ability to research and write about the distant past has changed enormously since the writing of the grand historical narratives and this has transformed the way that prehistoric cultures are thought about, studied and narrated. The level of detail that can now be achieved in excavation may not vary between prehistoric and historic assemblages and scientific approaches to

the archaeological record mean that there is now a lot more to say about earlier contexts, a theme that appears throughout this book. If prehistoric evidence can now obtain such levels of detail, then there is no need for the narrative divide from an archaeologist's point of view, when history is to be told through things (Bayliss and Whittle, this volume; Gamble 2014). Or alternatively, should we revel in the difference between the prehistoric and historic periods and regard prehistory as being in possession of an advantage, that of the freedom that is imbued by a relative lack of evidence? According to Harman (this volume), this allows the viewer to focus on enduring, pertinent patterns rather than potentially unimportant details, thereby employing the older approach of prehistorians but with a modern perspective.

The archaeological tendency to focus on origins, transitions and 'revolutions' in order to analyze human history and historical change – the most obvious in prehistory being the transition between the Palaeolithic and the Neolithic, the so-called agricultural revolution – has formed the core of grand historical narratives. Elements of the original grand narrative are understood very differently as a result of the wealth of new data; some have taken on a new importance that might overshadow the role of the written record and research focus now centres on transitional periods. It is now, for example, widely supposed that the Neolithic is the real 'tipping point' in human history; Hodder's (2018) work on the nature of the Neolithic transition and conclusion that its scale was huge, occupying a period of thousands of years, demands that terminology be adapted. Something on such a scale cannot be regarded as a revolution, and is a transition in only the slowest sense, and requires the rewriting of prehistoric narratives to include processes and define timescales. In this case can it be conceived as a very slow and gentle tipping point in human history; so slow that it is still ongoing? The question of to what we should give importance and how history and archaeology should be integrated with one another, how co-existing prehistoric and historic societies should be related to one another and the many forms taken by history, including, for example, storytelling, is one with a variety of possible answers.

Archaeology and history

Archaeology is in a privileged position to provide an historical perspective for the entire human past, inviting challenge and interdisciplinary dialogue. Archaeology's related disciplines need to accept two basic facts: (1) that the analysis of written records is just one methodology to assess human intentions and historical processes; and (2) the analytical potential of the spatiality,

materiality and temporality of historical processes.

Despite several calls for the understanding of the relationship between humans and things as mutually constitutive (e.g. Herzfeld 2009: 109; Ingold 2010; Olsen and Witmore 2015), the continuing presentism in anthropology's (and history's) take on the material assemblages it encounters casts the material world as a construct in, of and for the present. Space also had a submerged theoretical and analytical presence in our related disciplines until fairly recently (see Souvatzi 2012a, and Hadji and Souvatzi 2014 for reviews and references). It can also be argued that anthropological research has dealt with temporality almost exclusively in the short term and that accounts that are historically informed are still required. However, it is the materiality, spatiality and temporality of human actions and interactions that create links between people, place, practices, things and time that connect them to key historical phenomena. As outlined accurately by a prehistorian,

the ability of archaeology to discern associations among the built environment, the natural landscape, artefacts and the remains of the dead speaks directly to how materiality, embodiment and the spatiality and temporality of social life give meaning to people's actions and interactions at multiple social scales and in diverse settings.

(Hendon 2010: 5)

History for archaeology is not just measuring time and dating or even just the construction of temporal sequences. Although not very systematically, and certainly not as a unified research agenda, archaeologists have problematized history repeatedly over the years, showing an increasing concern for context and diversity and addressing a variety of themes of interdisciplinary interest, including: relationality, memory, identity, practice, body, structure and agency, transition and transformation, tradition and innovation, construction of cultural heritage, and oral history (e.g. McGlade 1999; Pauketat 2001; Robb and Pauketat 2013a; Schmidt 2013; Stiner *et al.* 2011; Whittle *et al.* 2011a; Lucas 2005; see also overview in Watkins, this volume). Pauketat (2001; 2004: 199) has dubbed all the various bodies of archaeological work concerned with historically oriented theorizing "historical processualism". Robb and Pauketat (2013b: 20–24) have recently proposed a shared focus on "big histories of relationalities" (Ibid. 20) for the construction of narratives of deep history, containing the following analytical facets: social relations; relations between humans and material things; and relations between humans and space or place over time. The French Annales School of historical analysis with its emphasis upon both deep time and daily life, particularly Fernand Braudel's (1972) perspectives, have also been explored in archaeology, but not uncritically (e.g.

Bailey 1983, 2007; Bintliff 1991, 2004, this volume; Harding 2005: 6–10; Knapp 1992b).

One important direction concerns the notion of history in the past, distant and recent, or the past in the past, including prehistoric forms of history, history-making and historical consciousness. An increasing number of archaeological studies show how objects, buildings, spaces, habitual practices, as well as formalized sets of ritual activities can all be enmeshed in strategies by which groups created histories and constructed their own notions of, and connections to, the past (e.g. Bradley 1991, 2002; Hendon 2010; Gosden and Lock 1998; also, Chapman and Gaydarska, and Hodder, this volume). Questions of particular interest include how was the past conceptualized in relation to the present and what kind of futures were imagined by past people (e.g. Crossland 2015: 17); how were the tensions between the inheritance from the past, the intentions of the present and the anticipations of the future worked out (e.g. Gosden and Lock 1998: 4); and what alternative histories co-existed with one another, creating potential sources of conflict with and between societies (e.g. Hendon 2010: 18).

Within the various attempts to address historical process(es) in prehistory, the recent reconceptualization of space as socially, culturally and historically produced is perhaps the most systematic. Central themes of research include landscape and built space as both the media for and the outcome of histories of action and therefore as records of social history; the long-term ways in inhabiting a particular landscape, with variable long-term historical effects; architecture and the built environment as a frame of relationships between different people and at different times, as well as a material mnemonic of those interactions; the movement of people, objects and ideas; site duration, abandonment or relocation; the complex life histories of buildings and artefacts; and bodily movement, experience, orientation and knowledge (e.g. Edmonds 1999; Hendon 2010; Richards 2004; Souvatzi 2013a; Tilley 1994; see also Souvatzi 2012a for further references).

Another trend takes an explicit view of kinship as a social and historical construct and explores how concepts of relatedness were formed and realized in the distant past and how they were linked to the construction of identities, relationships and wider social structures and transformations (e.g. Gamble 2008, 2013, 2014; Ensor 2013, this volume; McAnany 1995; Shryock *et al.* 2011; Souvatzi 2017). For example, Gamble (2008, 2013, 2014) demonstrates how in Upper Palaeolithic societies kinshipping and hospitality, realized through people's relations with material things and through their material transactions, created social life as well as networks of interdependence involving large-scale mobility and exchange.

Equally relevant is the growing archaeological focus on prehistoric houses

and households as dynamic and historical social units. It has resulted in a burgeoning and promising literature on the historical and social construction of domestic space, daily practices and social identities, as well as on the interaction between changes in household organization and changes in the broader society (e.g. Chapman in preparation; Düring 2014; Joyce and Gillespie 2000; Moore 2012; Parker and Foster 2012; Souvatzi 2008, 2012b, 2013b, 2014; Zubrow *et al.* 2010). The current conceptualization of social memory in prehistoric archaeology, with its focus on materiality and historical process, can serve as another example (e.g. Hendon 2010; Olivier 2011; Van Dyke and Alcock 2003; Watkins 2014). As Hendon (2010: 14–18) argues, memory should not be seen a substitute or poor relation of, and much less as opposed to, history. Memory is not something that people have but something they *do*, and by doing it they become bound in webs of social relations and therefore they create history. For example, Hendon demonstrates how the residential compound in pre-Hispanic Mesoamerica structured time and memory through the daily repetition of practices, the repeated reconstructions of buildings, the burial of ancestors, the transmission of knowledge and finally the transmission of the houses themselves. These actions turn the dwellings into historical referents that span generations (see also Bayliss and Whittle, Chapman and Gaydarska, and Hodder, this volume).

Overall, discussions of history in contemporary archaeology reflect interdisciplinary interests and an increasing awareness of the fluidity and permeability of analytical domains and levels. This is not to say that they are without problems. One problem concerns integration and/or the alignment of approaches and interpretation. As mentioned above, rather than an internally coherent or unified research agenda, history is approached in prehistoric archaeology through a collection of theories, categories, terms and notions.

A serious theoretical problem is that the grand models of social evolution, and generally the idea that societies change from ‘simple’ to ‘complex’, have continued to influence archaeological thought, even though implicitly, and despite important critiques (see Souvatzi 2007 and 2008: 40–43, 205–207 for detailed discussion; also Chapman 2003, 2014; Kohring and Wynne-Jones 2007). Neo-evolutionary models, however, involve the treatment of technological advancements as chronological, but also as cultural markers and of history as displaying an overall directionality towards the culmination of ordered progress and the apex of societal achievement. In using such single-dimensional frameworks it is impossible to look into the many processes that take place in a given historical context or to account for cases of discontinuity and devolution. A further implication is that modernity, or the achievement of modern, for each period, remains “the hidden grand narrative” (Gamble 2014: 6).

Further obstacles to viewing history as relational and processual include the under-theorized conceptual and analytical relationship between ‘history’ and ‘time’; the habitual treatment of space and time as two separate categories rather than as interrelated; and the lack of a balanced focus on both the long and the short term. These are discussed in the following sections.

Time

The link between the disciplines of history and archaeology and the essential tool in the construction of narratives is time, the approaches to and understanding of which varies between disciplines and is affected by the history of research as much as by changing methods for its scientific measurement. The (recorded) conceptualization of time starts with Hesiod, who associated the mythological character Kronos with time. According to Anaximandros, time was in a bounding or dividing location, while Herakleitus thought time was a continuous progression without beginning and without the possibility of return and described time as ‘aion’ (‘century’ in modern Greek and equivalent to the English ‘eon’), meaning long time (Turetzky 1998: 8). With his famous expression *No man ever steps in the same river twice, for it’s not the same river and he’s not the same man*, Herakleitus underlined that time is a flux. Parmeneides laid the foundation of the interrogation of the reality of time and ontological and logical positivist Western thought. In light of this work, Plato suggested that instead of paying attention to the permanency of the unchangeable and to its reality, attention should be paid to the reality of the changeable. Aristotle presented his thoughts on the nature of time (Physics, Book IV, Part 10–12), saying that it is not the same as change; in fact it is related to motion and the number of motions. According to Aristotle, time “is not held to be made up of ‘nows’”, and his connection between time and motion brings to mind Newton’s work. The Epicureans and Stoics also presented important views on the subject of time. Of these, the Stoic Zenon endeavoured to measure whether time was fast or slow according to moving objects (Mazur 2008; Lucas 2005: 20). As in the case of Aristotle, it is notable that Zenon also thought that time and motion were connected.

Showing similarity to Aristotle’s thoughts on time and motion, Newton divided time into absolute and relative time. With the influence of Descartes, Newton, thinking that without defining time no progress could be made, wrote: “Absolute time, without reference to anything external, flows uniformly” (DiSalle 2006: 20). On the same platform as Aristotle, although from the perspective of the empirical school of thought, John Locke (1998 [1690]), along with sharing his view that time could be measured with

movement, also indicated that time should not be confused with movement. Among 17th-century thinkers, Leibniz, contrary to Newton and Locke, proposed that because movement cannot happen without a cause, a causeless thing cannot exist, simultaneously laying the foundation of the principle of relativity.

Spinoza, with a view similar to Descartes, adopted moments, which can be measured with time only using standard motion. According to Spinoza (1992), moments can be separated from each other into superficial moments and basic moments with numbers and superficial moments are infinite, dividable into pieces and made up from pieces. Kant evaluates time as an a priori condition. After Kant, Hegel evaluated time as 'becoming' from a dialectic perspective. According to Hegel (2001), dialectic is the essence of time (Turetzky 1998: 106). It is not possible to pass by recent thinkers such as Husserl and Heidegger. Among Husserl's lectures on phenomenology, time has an important place, which can be summarized as the basic situation of consciously continued stability and even if this stability stops, the continuity of consciousness (Husserl 1999; Lucas 2005; Turetzky 1998). Heidegger evaluates time in being (1949, 1962 and 1972) summarized by Harman (2007: 1) as "being is not present, because being is time – and time is something never simply present".

As Deleuze and Guattari (1986) have indicated, one of the shared points of thinkers such as Bergson, Husserl and Heidegger, is the concept of time, shaped as a "relative awareness" (Massey 2015: 1–2). Time has become an important subject of research not only in philosophy but also in geography, anthropology, history and other social sciences including archaeology (Adam 1990, 1994, 1998; Bachelard 2000; Carr 1986; Fabian 2014; Hawking 1998; Hoy 2009; Lucas 2005; Lyman and O'Brien 2006; Olivier 2011; Urry and Gregory 1990; Zielinski 2006).

Among these, as mentioned above, it is particularly history and archaeology that investigate humans and human groups who lived in the past, that need to explain their evidence within the context of time. History limits itself to periods in which written records are found. Archaeology, on the other hand, carries out its work taking geology as its model. Archaeology could solve its dating problem to a certain extent using analogical comparisons and stratigraphic techniques and association, sequencing and seriation. The stratigraphic revolution (Lyman *et al.* 1997: 4) allowed time to be measured with artefacts (Lyman and O'Brien 2006), but a need was felt for more specific dates. Childe (1948), in his work on the development of the past cultures of the Near East and Europe (Thomas 1996: 30) tried to understand and explain logically communication and effect spread across time. Unclear historical connections were given better definition from the temporal perspective by the use of radiocarbon dating and a range of other dating techniques (Renfrew and

Bahn 1991; Aitken 2013).

These dating techniques allowed a break from doubts about the subject of time in archaeological research, if only temporarily. At the end of the 1970s the interrogation that started with Braudel (1993, 2001) and the approach known as the 'longue durée' awoke interest and started debate. In the wake of the expansion brought by processual and post-processual approaches similar debates were shortly afterwards established in archaeology (Bailey 1981, 1983, 1987; Hodder 1987, 1988; Shanks and Tilley 1987). The subject of time in archaeology was kept on the current agenda and on a broader platform as well as in great depth by many researchers including Bradley (1991), Thomas (1996), Murray (1999), Lucas (Lucas 2005, 2015; Lucas *et al.* 2006), Olivier (2011) and Souvatzi and Hadji (2014). The rethinking of the term 'time' in archaeology has been a reason for not only questions about what time is being talked about in researching the past, but also what type of time we are researching and according to who and whose time is being discussed – an intensification in theoretical thinking. The existence of different temporal dimensions at the same time, modern technologies juxtaposed with hunter-gatherer groups only becoming newly acquainted with the modern world, has been the foundation of this type of theoretical enquiry. The beginning of Bailey's 1980s enquiry into scales and time perspectivism from the archaeological viewpoint (Bailey 1981, 1983, 1987, 2007 and 2008) opened the subject to debate. According to Bailey (1981: 103), time perspectivism requires different explanatory principles because at different timescales different behaviours come to the fore, "the belief that different timescales bring into focus different sorts of processes, requiring different concepts and different sorts of explanatory variables" (Bailey 1987: 7).

Bailey's work about time caused the start of a long-term debate. In archaeology the experience of the past, near or distant, is understood by starting from the marks of material culture. This giving of meaning to time brings to the agenda, as emphasized by Shanks and Tilley (1987: 119), the question of whether time is a context or whether in the making of the explanation we enter deconstruction mode and then reproduce and consume the context in every moment.

Bradley (1991: 209) highlights that besides archaeology, the shared subject of history and anthropology is also time and that the only difference between these is the different way the subject has been handled. He assesses time in the two categories of 'substantial' and 'abstract' and maintains that abstract time is made up of segments and is related to the future and substantial time is made up of human experience. From the moment an archaeologist enters a trench they are intertwined with the past and taking time backwards with every movement of the trowel where past and present time is also recorded

(Hodder 2000; Simonetti, this volume), with every scrape of earth time is being dug (Chadwick 1998). Radiocarbon gives a specific time to a single unit of a house or the phases of building of a house or the use phases (Hodder and Pels 2010; Hodder 2016). This is similar to saying that from a single frame of a three-hour film it is possible to select the film for Oscar nomination. It is only the tying together of the different frames that allows a continuity and opens the primary matter of the film to explanation. More importantly, every action comes at a specific point in time and if these actions are related to other actions and have an effect on the start of another action, then, as pointed out by Hodder (2011), rather than time's undulation, circularity, verticalness or horizontalness, an entanglement can be identified, and this entanglement must be related to not only its time and extent but also to its interior and exterior objects and subjects.

The concept of time, either for archaeology, or for history and anthropology, is a system of thinking that belongs entirely to the branch of knowledge in question. Reference to this is given in very simple form in Gamble's work (2014: 154), in which he rejects the use of the term *pre-history* on the basis that it breaks historical continuity. Meanwhile Schmidt and Mrozowski (2013) announce the death of prehistory. In order to give meaning to the past, archaeology as a system prefers to divide and reduce, an approach that, as mentioned above, started with Thomsen's Three Age System and is still systematically continuing. Recent work in archaeology, history and anthropology share the problematization of whether and how to divide time. It can be seen in concepts such as the 'longue durée' (Braudel 2001), 'deep history' (Gamble 2014; Shryock and Smail 2011a), 'micro history' (Shillito *et al.* 2011), 'big histories' (Robb and Pauketat 2013a) and the 'slow Neolithic' (Hodder 2018) that debates about our relationship with time, about whether time should be divided into segments, or whether it should be viewed as a whole will continue as long as we continue to debate time.

Past, present and future are the main scales into which we can divide and measure time, and we consider objects or material culture remains from the past that reach the present, where they share our own time, and then continue to the future. As they transit from one time to another they share the times and share their different meanings with each time. The constant changing of place of objects or things or their taking on of a different dimension in this temporal context, is given a new perspective in the relationship between time and history by Olivier in his work (2003, 2011 and also Hahn and Weis 2013; Harman, and Corfield, this volume). So objects that are continuously passing through time are part of the production of different cultural entities, either directly or indirectly. In this situation, if we think about how far we are from the past, it is in fact a sign of how close we are to it.

Historical units, relationships and scales: the need for a multi-scalar approach

A critical strength of archaeology is that it has access to multiple scales of time and space, and therefore the potential to examine past relations and events and their inter-linkages at different scales. However, archaeology is still struggling to find a coherent way to build analytical frames for a historical outlook on prehistoric societies and to translate the archaeological record into historical evidence, despite its growing interest in history-related themes and its increasing capacity to measure and theorize time. In the archaeological literature history is often conflated with time, is treated as a given, or as “an accumulative palimpsest of processes” (Robb and Pauketat 2013b: 19). History has been approached obliquely through a variety of concepts and terms, most notably memory, temporality and relationality. As a result, many archaeological studies work at cross-purposes with little integration of the various concepts and analytical frames. A multi-scalar approach can be key to moving forward, as well as providing a unifying framework for the various bodies of historically oriented archaeological work. There are two essential steps to this end. The first is that we need to rethink whether chosen concepts and theories meet the requirements of an approach to prehistory as history. The second concerns the choice of appropriate analytical units.

The above is not to say that useful attempts at multi-scalar archaeology have not been made, from the Annaliste agenda in archaeology to the recent views of history as relational and interactional, or that an appreciation of the many spatial and temporal scales existing within any kind of archaeological dataset has not been shown (e.g. Chapman 2014; Robb and Pauketat: 2013b; Souvatzi 2008, 2012b; Whittle *et al.* 2011b). But it is to argue that archaeological practice in general (as opposed to theory) is still largely marked by a series of contradictions and by uncritical adoption of inherited models that impede a multi-scalar approach.

A major theoretical obstacle concerns the continuing influence of the grand models of social evolution and the Eurocentric views of historical directionality towards the culmination of ordered progress, discussed earlier. The very divide between prehistory and history is grounded on such Eurocentric perspectives. Another serious theoretical problem relates to the treatment of interrelated concepts as opposites – most importantly space and time; long and short term; past and present; and stability or continuity and change.

While the dialectical relationship of space and time has been convincingly argued for in several theoretical publications, it has rarely been applied in actual empirical analysis, in which the two concepts continue habitually to be

examined independently of each other (for recent reviews and references see Souvatzi and Hadji 2014). However, when we separate or contrast space and time, we fail to acknowledge that all historical processes are intrinsically both temporally and spatially contingent. Indeed, the historian Penelope Corfield (this volume) argues that space and time are so universally and diachronically interlocked, and their analytical scales so parallel to each other, that, in their changing combinations, they form the core of history. Adam and Kemp (this volume) argue that the matter-space-time interdependence is key to overcoming all manner of binary distinctions in our empirical analyses.

There is also a marked lack of a balanced focus on both the long and the short term. Archaeology's traditional devotion to the long term to provide grand narratives of the past has often ignored the dynamics of short-term, small-scale social agency. However, recent alternative approaches have tended to focus almost exclusively on short-term agency, practice and meaning and their singularities in local contexts, thus eschewing historical depth and equally avoiding the problem of linking scales. Both trends downplay the fact that real-life practices and relationships have a variety of timescales. Moreover, either by commonly reducing historical process to exogenous factors in the form of environmental and economic determinism or by working in ethnographic time, both trends trivialize the key issue: the socially and historically specific structure and its interaction with human agency. Mid-level theories which can combine as well as test generalization and particularization, and mid-scale analysis of intermediate socio-historical levels that provide fields for interaction between the synchronic and the diachronic are missing.

We should also effectively acknowledge the fact that past and present coexist in many ways and on many levels, and that there is no gap between them. The characteristically modern (as opposed to pre-modern) fascination with dramatic take-offs, 'irreversible' points of transition and abrupt revolutions in human history, with all its connotations of supremacy of 'modern' achievement and a decisive break with the past, flattens the past into the present. What's more, it renders that past as being of little interest. To slightly paraphrase Stiner *et al.* (2011: 269), it favours the moment of beginning rather than the process of becoming that precedes it and unfolds within it. In turn, the disconnection of the past from the present "collapses the time scale to a state where all actions begin and end simultaneously or all end in a very remote but identical long-term" (Bloch 1973: 76; also, Bloch 1977), thus blocking any attempt at history.

Nor is change in itself a teleology. Parallel to the preoccupation with abrupt points of transition, the analytic privileging of monumental change and instability, accentuated by the influence of postmodernism, has been so substantial that it would seem that "archaeology's diachronic perspective

serves only to provide a framework for the study of change” (Knapp 1992a: 13). However, social stability needs as much explanation as change. If we are to account convincingly for change, we first have to interpret long-term continuities in a particular setting out of which change grew and to elucidate what structures or practices or relationships are the target of change. We should also, as Pauketat (2013: 55) argues, “begin to see continuity and change as one and the same phenomenon” and not as antithetical to each other.

This brings us to the second crucial step: the choice of appropriate units or domains of analysis. Recent interpretative archaeologies employ a large number of potential units, from body to social brain, from ‘house societies’ to landscapes, and from historical ontologies to relational ontologies and the agency of things. For example, Robb and Pauketat (2013b: 24–30) set out a series of spatio-temporal analytical units, from the bigger scale of “historical ontologies” (long-lasting cultural worlds that provide general ways of life and understanding), to “historical landscapes” (long-term relations between humans and specific places that form particular social configurations), to “genealogies of material practice” and “cycles of political and ritual development” (local political histories, traditions, institutions and meanings usually spanning a few centuries), and finally “tipping points” (moments of rapid transitions or transformation). Pauketat (2013) further proposes the notion of ‘bundling’ of, in and as time, inspired by his analysis of North American practices of sacred bundling (or assembling) of objects (see also papers in Hamilakis and Jones 2017 for the significance of the concept of assemblage in archaeology and for new approaches to it). Bundles are seen as composed of and mediating a series of relationships, forms of remembrance and social traditions, and all these can in turn be attached to further bundles to carry forward historical change. Acts of bundling are potential processes of historical meaning making and therefore form the fabric of history. Gamble (2008, 2014; also, Shryock *et al.* 2011), drawing on Dunbar (1998, 2003), suggests a focus on social brain (to rethink deep history), whose central hypothesis is that it was social life, the engagement of bodies in different physical realities and the relations with material things which drove the evolutionary expansion of the human brain and which enabled humans to live in larger and more cohesive social groups. Stiner *et al.* (2011: 269) propose the metaphoric frame of “nested scalar leaps or expanding and contracting scales” in order to understand momentous shifts in human history in a way that explores the long lead-ins between such leaps and that pays particular attention to the processes that produced such leaps.

All such attempts have produced useful insights. The problem is that the definition and role of some of the proposed units are often taken for granted; that other units work either in the very long term or in the very short term;

others are ethnographically or historically over-specific and therefore not of wide applicability (such as Lévi-Strauss's [1983, 1987] House Societies model – see critiques in Ensor 2011 and Souvatzi 2017); and yet others tend to abstraction or stay at a starting generalization (for instance, Pauketat's theory of 'bundling' – see critiques in Bayliss and Whittle, this volume; also Jones 2015: 23).

However, a relational or interactional approach to history entails recognition of the fact that historical processes take place across space, over time and through the material world and not in a vacuum or in abstraction. In this sense, history generates and is generated by interactions that are structured by a set of places and within a particular span of time. Another main concern should be with issues of social agency and their articulation into a more comprehensive approach to history-making. If the idea of human agency is central to historical process, then we should be able to examine what it means to be a social agent in different historical and cultural contexts.

We need units that will enable us to fully utilize prehistoric archaeology's unique ability to discern the 'matter-space-time interdependence'. We fully concur with Stiner *et al.* (2011: 271–272) that "historical accounts are made possible by durable configurations [...] against which change can be perceived, modelled, and narrated". Ultimately, we need tangible and enduring socio-cultural formations that unfold on multiple scales and that possess both long-term structural consistencies and short-term contingencies through which historical process can be observed. Developments and transformations at such intermediate levels and those in wider contexts must therefore be examined simultaneously rather than consecutively.

Two of the most profitable such intermediate units are household and kinship. They both occur diachronically, cross-culturally and at various societal levels. They are of wide analytical applicability and comparative utility across not only small-scale societies but also the rapidly changing postcolonial societies. They both are loci where the synchronic and the diachronic, short-term and long-term concerns, and individual and collective interests may conjoin and conflict. They therefore allow us to examine the dialectics between a range of relationships at different scales, as well as to consider the interplays between the macro- and micro-levels. Household and kinship also are of great interdisciplinary value and most important foci of historical and social analysis and theoretical discourse across a wide range of disciplines for several decades (e.g. Hammel and Laslett 1974; Netting *et al.* 1984; Parkin and Stone 2004; Segalen 1986). And as Stiner *et al.* (2011: 247) accurately put it, "No matter how large the scale of political organisation becomes and no matter how many levels of social integration are added we have never stopped living in groups reminiscent of the earliest families, clans and tribes". It is the historical

dimension of these units that makes them intriguing and far-reaching subjects for investigation.

More specifically, households as complex and shifting socioeconomic and ritual groups by definition incorporate dynamics, historicity and dialectics (see Souvatzi 2008: 21–46 for detailed discussion). In addition to being composed of conflicting elements such as division and solidarity, and resistance and change, they also incorporate transitional processes (e.g. changes of membership, partnerships, repertoire of activities and physical dimensions) resulting from their constant interaction with the continually changing broader society. Household agency actively affects wider social structures through varying degrees of integration within that wider structure. In short, households have an important theoretical status in that they provide conceptual and analytical tools for grasping the dialectics between actions and their structural ramifications, and between reproduction and change. In her work on households in Neolithic Greece, Souvatzi (2008, 2012b, 2013b) has attempted to move between different scales of space and time in order to examine how households interacted with each other, with other institutions and with the wider social and historical setting, and how they affected or resisted wider developments and transformations in the course of the Neolithic.

Kinship is a most significant organizing principle of human grouping, the basic matter of social categories in archaeological, historical and ethnographic societies, and an important concept universally. It is closely intertwined with the entire history of humankind, and indeed, it may also have been a prime mover of it (Gamble 2008: 27–28, 29, 2014; Trautmann *et al.* 2011: 186, 187). Yet, with the exceptions mentioned earlier, its significance has rarely been incorporated within archaeology's theoretical and interpretative practice. Kinship is about much more than just blood ties. It is above all a powerful means to stretch identities across space and time and a mode of structuring time, history and memory. As Ensor (2013: 26) argues, “the study of kinship is the study of historical process or agency-directed change”. For instance, looking for inferences for kin groupings “dwelling by dwelling, settlement by settlement and phase by phase is an empirical approach to construct a multi-scalar understanding of kinship practices over time, thus avoiding normative generalizations and historical impositions that obscure variable group histories” (Ensor, this volume).

Of course, there can be other important analytical candidates for multi-scalar analysis, including the body, food, networks and the life histories of buildings and artefacts. For example, the Çatalhöyük excavations, using a reflexive methodology (Hodder 1997 and 2000) and the single unit excavation technique, offered an insight into the use life of buildings and revealed the extent to which function, contents and internal arrangements varied and

changed with time. Building 1, throughout its estimated 60–80 years' use life as a dwelling (Cessford 2007), was a shared place for the living and dead, and continuous and simultaneous acts took place in and around it throughout its use life. This excavation also exemplifies the relationship between the experience of the past in the past, and in the present through the eyes and actions of archaeologists. The shared place creates a diachronic network and various experiences of the past to which those involved bring their own knowledge and experience and results in a layering of scales between the deep past, momentary actions and the present view (see Simonetti, this volume).

Overall, it is essential that we choose units that should (1) allow us to move continuously between scales and moreover, to examine those scales simultaneously rather than consecutively; and (2) provide us the opportunity to see the processes that compel change without reducing agency to exogenous factors or to some inherent variable called 'tradition' or 'innovation'.

Scale, perspective and the historical narrative – the aims and contents of this volume

One of the aims of this book is to juxtapose the views of scholars from different academic fields and to compare their approaches to the multiple questions associated with the relationship between history and prehistory based on their varying experience of the theoretical and practical aspects of the prehistoric period, its historical nature and how it relates to time. The authors' responses to this topic are diverse and particularly notable for their different perspectives but there are several recurring themes.

Material culture – the physical objects of the past – is the single ubiquitous subject in all chapters. There is widespread agreement that artefacts are just as historical as written texts, and when the whole of human history is considered, are far more widely available. Several of the authors discuss the 'lack' that is associated with prehistory (whether in the eyes of scholars or in scarcity of data), but far more prevalent is an optimism about the large volume of useful data now available relating to the distant past. The way that this data can be used, and especially the question of scale in how we choose to see and to explain the past, can be approached from a multitude of perspectives that range in depth from the complete human past to a single moment.

The first section of this book, [Part I: Perceptions of the Past](#), focuses on how the past is seen and how we deal with the way that others see the past and their own experienced presents. All the authors in this section question our accepted versions of the past by experimenting with perspective, zooming in and out from small-scale processes to think about whether they are visible

from different ‘distances’, questioning how time is experienced, considering non-Western and even non-human ontologies and our own accepted archaeological narratives, and the ways in which we measure and relate to time within archaeological research.

Doug Bailey both suggests a need to reconsider the way we perceive time and by converting the reader to a viewer, presents perception of time in visual format. Making use of critical flicker fusion frequency, Bailey asks us to question everything we know about how archaeological conceptions of time work. This large-scale rethink is echoed by Cristián Simonetti, who considers the relationship between the scientific measurement of time and everyday experience, asking how far time in archaeology can be separated from sensory experience. He uses “vertical and horizontal appropriations of time and space in the study of prehistory” to ask to what extent small-scale processes are visible.

This theme is also taken up by Peter Schmidt, who considers the difficulty of engaging with non-Western ontologies and different realities in an academic environment where they might “undermine the canons of historical interpretation”. Schmidt asks if by not including other ontologies we are producing non-inclusive histories and not understanding how people were thinking about space-time and its relationship to the material culture with which archaeologists, or historians, are working.

Gavin Lucas grapples with the problems outlined by Schmidt by accepting periodization as a premise for archaeological research and considering what challenges that situation presents to the archaeologist. Periodization is based around change. In Lucas’s example of Skálholt, most change is piecemeal – it occurs in individual buildings, but not in the whole site. Lucas sees a different periodization for each class of thing, including the written record which is available in his unusually high-resolution example. This highlights how difficult it is, even in relatively recent historical periods, to decide which events were important and widely applicable points of change.

The issue of choice of scale in the writing of historical narrative forms the theme of the second section, [Part II: Narrative Construction](#), which asks how we organize narrative into existence and how we challenge and change existing narratives. The relationship between archaeological data and historical narrative, as well as time-depth, varying qualities and quantities of evidence and historical narratives marshalled into coherent and meaningful archaeological texts are all topics of interest to the authors here. In his chapter on cultural niche construction, Trevor Watkins considers the Neolithic period as “the pivotal point” in the whole human story and the one that effectively bridges the huge span of prehistory and the historic period, highlighting the need to find a single narrative that can unite traditionally divided areas and

employing the notion of 'cultural niche' might make it applicable to use Smail's (2008) concept of 'post-Neolithic history'. The deep history, large-scale approach with which Watkins advocates the bridging of scalar divides are also important questions for John Bintliff, who uses the lens of structural history and specifically the Annales School to consider how the gap between the medium and long term and the short term can be overcome, arguing that this viewpoint solves many of the problems tackled by the later processual and post-processual schools. In considering the environment as well as human agency in waves of processes, Bintliff taps into themes of the hyperobjects discussed by Harman, as well as the broad continuities for hundreds of thousands of years discussed by Watkins.

Bintliff espouses improvements in dating and excavation detail as solutions for lack of resolution in currently obscure contexts, and the next two chapters, by Alex Bayliss and Alasdair Whittle and by John Chapman and Biserka Gaydarska, take up this subject. Bayliss and Whittle have a record of talking about history in their archaeological work on prehistoric periods challenging the idea of incomplete sources. Here they explore history as produced from archaeological evidence recovered from a long-term flat site in Hungary, advocating a multi-scalar perspective that particularly takes account of human lifetimes and generations.

Whittle and Bayliss's two final examples resonate with Chapman and Gaydarska's take on Yi-Fu Tuan's question, "what time is this place?" in their consideration of the house as the key in the 'time-place relative framework'. Raising some of the themes of Lucas, Chapman and Gaydarska consider settlements through a series of snapshots in time, or 'timemarks', functioning in a similar fashion to landmarks, particularly through intentional mound forming and house-burning, showing the active construction of social time through direct association with an event or timemark. This way of creating history suggests that, contra Bintliff, the individual could be a conscious agent and have knowledge of a medium term and that repeated practice and even storytelling might have had various scales, as seen also in Schmidt's example.

Bradley Ensor uses settlement plans and evidence of public communal activities, gift-giving/competitive exchange and burial practice to write the histories of different kin groups, including changes in the way that the group structure was managed through time. He adopts a deconstructive approach in order to reconstruct historical narratives using archaeological material culture and agency, relationality and identity over much longer time spans than would normally be the case. This relies particularly on the use of houses, as in the case of Chapman and Gaydarska's examples, to define a relationship between practice and kinship which can be used for a multi-scalar analysis of kinship through time, which, as Ensor concludes, is sufficient to create a narrative

history.

The book's third section, [Part III: Objects and Making History](#), concentrates on what items of material culture are within the historical perspective, and how they were used in the past to create historical narratives. Each of these examples considers how both time and history are reflected in objects, what we can understand from them and how we can interpret them taking full account of their historical nature. There has been a rapid rise in acceptance of objects as historical items in recent years. As highlighted by Wylie and Chapman (2015), the BBC's *History of the World in 100 Objects* series shows a willingness to consider objects as part of history, no matter their date or origin. The authors here centre their ideas around the relevance of material culture to how we view history from the very grandest of scales in the case of Graham Harman, to the very smallest by Barbara Adam and Sandra Kemp, Zoë Crossland and Ian Hodder.

Graham Harman echoes Bailey's consideration of the relative speed at which things move in relation to one another through hyperobjects – those things that, for the prehistoric period, would include basic items in human history such as the wheel. Harman argues that ultimately the prehistorian is working in the same way as a future speculator, with a lack of detail, that allows a clarity in the big perspective. According to this perspective, the advent of writing and its effects are of relatively minor importance, being of short span within such an extended time frame.

Barbara Adam and Sandra Kemp apply a temporal lens to prehistory through images of the human face. They emphasize the sensual qualities of artefacts and their ability to open up “the realm beyond the present” effectively, allowing them to move between times, as Crossland also discusses, making artefacts agents of the future. Their example of plastered Neolithic skulls also causes us to question to what degree these objects were representing and communicating both past and present histories and messages.

Zoë Crossland tackles two issues: does the meaning of an object come from the past or present, and how does memory evolve in the present? Crossland's examples of standing stones in highland Madagascar are a deliberately created history and a method of communication whose meaning and message can change. The direct nature of the interaction between the stone and the audience, and in one case the directly written message, imply that the stone is standing in for the person and taking their role in the future. Like Crossland, Ian Hodder argues for a very direct manipulation of the present and future by using material culture and practice to make history that has often been overlooked by archaeologists as a result of their ‘horizontal’ or plan perspective that lacks the depth to consider stratigraphy as a social phenomenon. In the Neolithic example from Çatalhöyük, it seems that space

and place were emphasized by the building of houses and also by repeated similarity of organization, thereby forming a central part of the Neolithic process as discussed by Watkins (this volume).

Our epilogue is provided by a 'frank friend' of the discipline of prehistory – Penelope Corfield's contribution to this volume considers what prehistory is, and has the potential to be, in the eyes of an historian, and argues that the term prehistory is due for retirement. Turning to the principles of Big History, Corfield argues that prehistory is an inalienable part of history as a whole, and its study is a fundamentally interdisciplinary area. In this it shares many of its problems, including the terminological ones, with other fields of historical study. Corfield concludes, as do many of our authors, that continuity is of importance and needs to be characterized with the same rigour that has been applied to change. This involves the characterization of changes often regarded as epic by prehistorians as 'turbulence' and their juxtaposition with continuity or 'graduality' in other areas and brings us full circle to the main theme of the volume: scale and how we look at different elements of time and space in relation to one another.

The effects of the history of archaeological research in reinforcing the divide between history and prehistory and the conception of prehistoric societies as ahistorical are beginning to ebb. As the chapters of this volume make clear, research in recent years has done much to dispel the existing dichotomy and a move towards big data and deep history encourages an emphasis on the long term and continuities. We see that inclusive histories that take account of different paces of change, as well as allowing a space for continuity, require a common narrative, a way to talk that includes different disciplines and types of data. Given that data resolution for the prehistoric period is improving, it is increasingly possible to seek levels of detail previously associated with traditionally historical periods and gain the facility to zoom in and out at different scales to question the importance of events from different perspectives. Both artefacts and place play an important role in this enterprise; stratigraphy of a certain place is a useful tool with which to pin down time and centre a narrative, with the house being a particularly useful unit both for considering the manipulation of history by inhabitants of a settlement and for using diachronic patterning to measure pace of change and continuity. Bridging gaps in narrative, particularly those associated with perceived pivotal points in the pace of change, and finding a place for inclusive histories at multiple scales underlines that there can be no complete history of the human past without the contribution of the hundreds of thousands of years of human history known as prehistory.

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Part I

Perceptions of the past

2

The Uexküll calibration

Chronology and critical flicker fusion frequency

Doug Bailey

Different beings (human and animal) perceive time in different ways and at different rates. Recent work of a team led by the theoretical ecologist Kevin Healy (Healy *et al.* 2013) explored the variations in temporal perception and refined and broadened the work of early 20th-century biologist Jakob Von Uexküll (Von Uexküll and Kriszat 1934; Von Uexküll 1940, 1957, 2010). This chapter explores the consequences of the work by Healy's team and by Von Uexküll; the format preferred here is of visual montage (see Bailey and Simpkin 2015 for other montage explorations of archaeology and time; see Bailey 2013 and 2014 for other montage complications of archaeological work).

Jakob Von Uexküll (1864–1944), an Estonian biologist, helped establish the field of biosemiotics. In part, Von Uexküll focused on how animals perceived their environments; his concept of *umwelt* found traction with philosophers such as Martin Heidegger. In one famous example, Von Uexküll describes the specificity of how a tick (*Ixodes rhinitis*) perceives its environment through the sensitivity that its skin has to light, and its sense of body heat of prey (Von Uexküll and Kriszat 1934; Von Uexküll 2010: 44ff.).

For Healy and his colleagues, the critical flicker fusion frequency (CFF) is a measure of how different animals (humans included) process temporal information. The measure of CFF marks the lowest frequency of a flashing light that an animal perceives as being constant (Healy *et al.* 2013). Measurements of the frequency vary with animal body size and metabolic rate: body size and metabolism constrain an animal's sensory limitations. CFF reveals an animal's temporal resolution. Resolution varies: large bodies decrease animal manoeuvrability; high metabolic rates increase

manoeuvrability and abilities to process information (Healy *et al.* 2013: 676). As shown in [Table 2.1](#), small animals with high metabolic rates processed the highest maximum CFF and have the greatest abilities to perceive temporal dynamic visual information; large-bodied animals with low metabolic rates have lower frequencies (Healy *et al.* 2013: 688). Thus, different animals perceive time (and thus their worlds) differently. Seen from our human perspective, for some animals time seems to slow down; those animals appear to respond very quickly to events (e.g. our difficulty in catching a fly with our bare hands; our ease at capturing or studying a leatherback turtle).

The montage presented here is the result of asking a range of different animals (humans included) to review seven different methods with which archaeologists have studied time and chronology. Some animals did not get very far; others raced through. Readers can either plunge in without assistance or they can use the legend below as a guide.

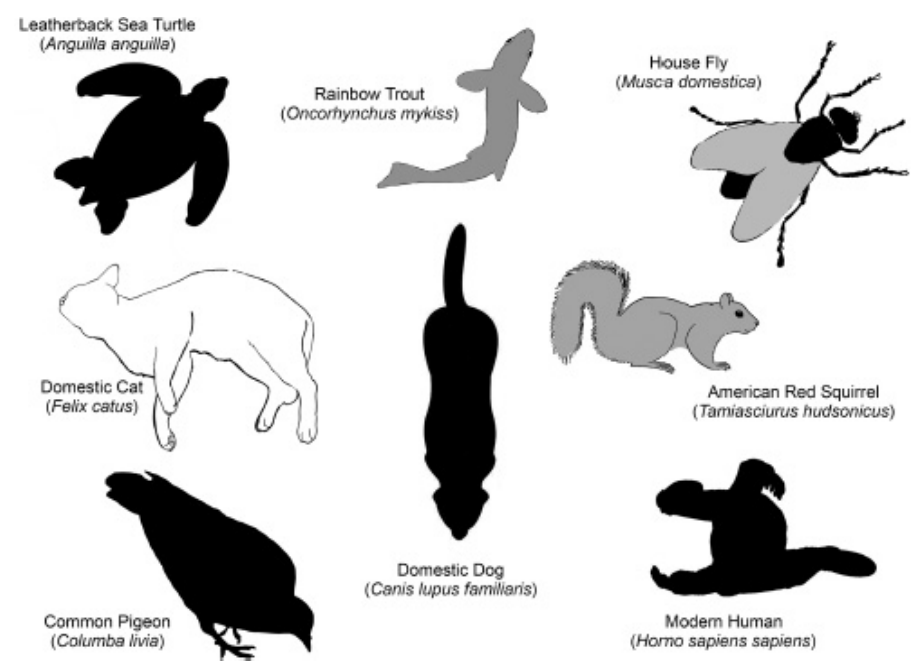
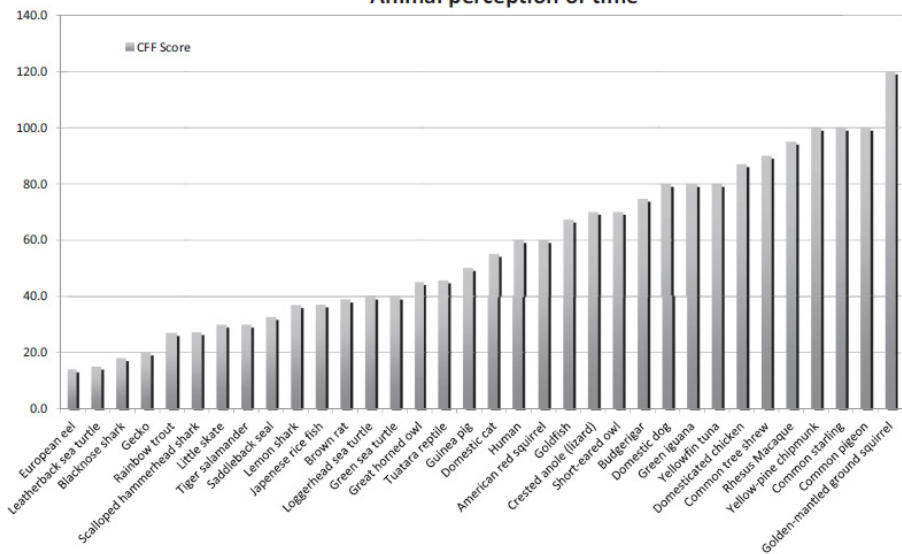


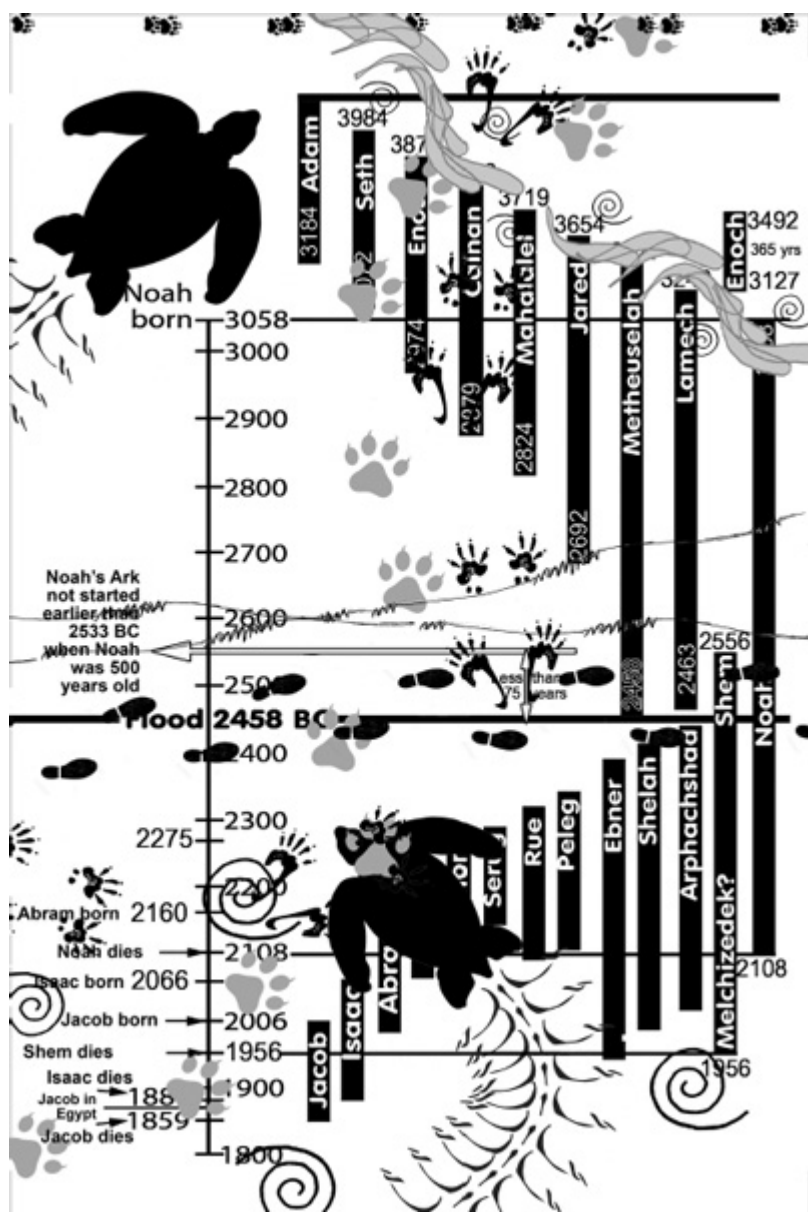
Figure 2.1 Legend for the component parts of Figure 2.2

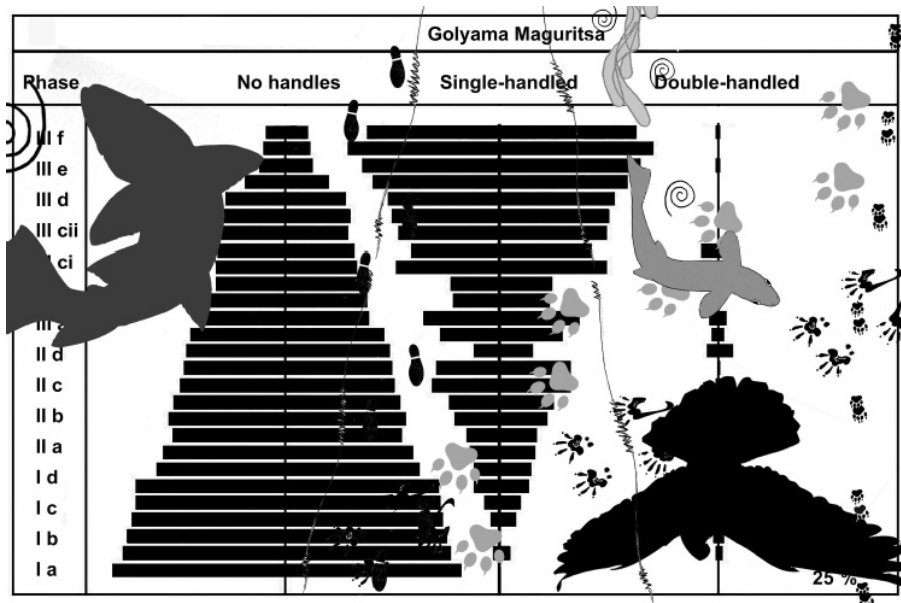
Table 2.1 Data used by Healy *et al.* in study of critical flicker fusion (CFF) analysis

Animal perception of time



Source: Healy *et al.* (2013: table 1).







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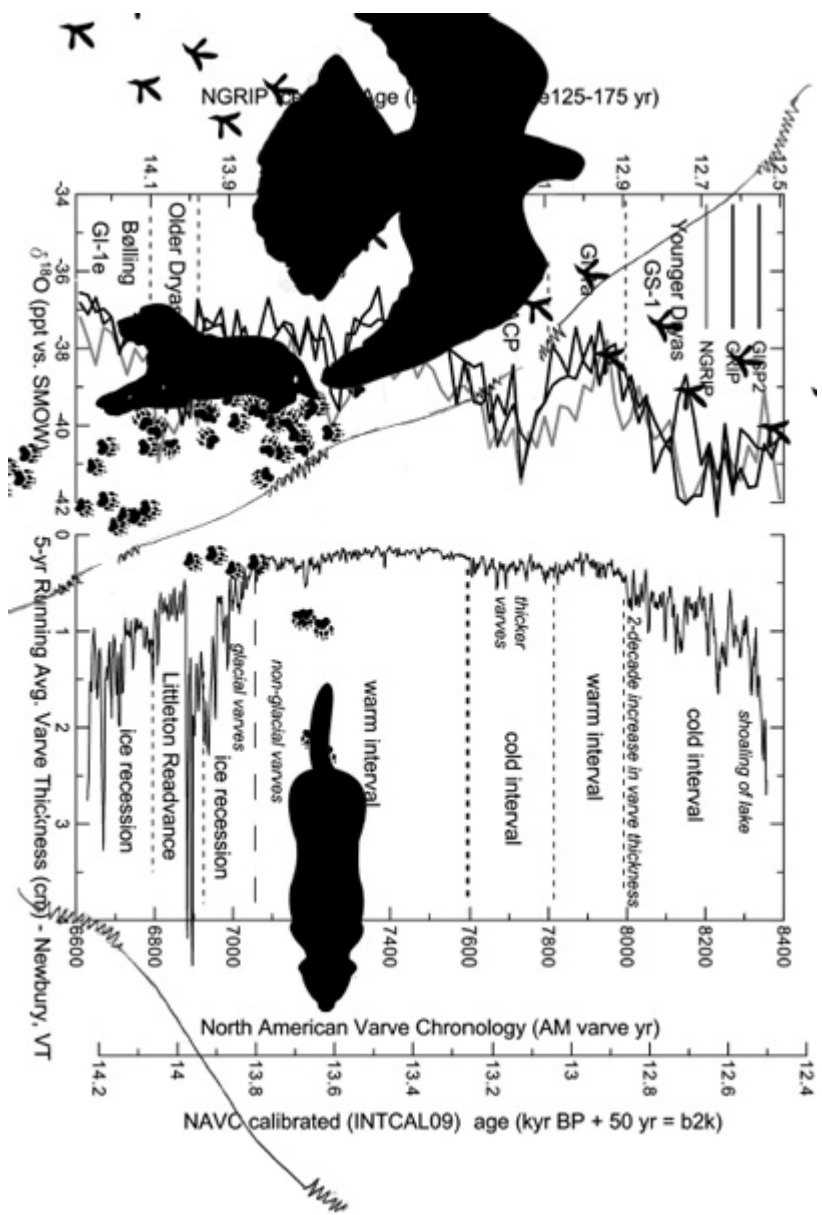
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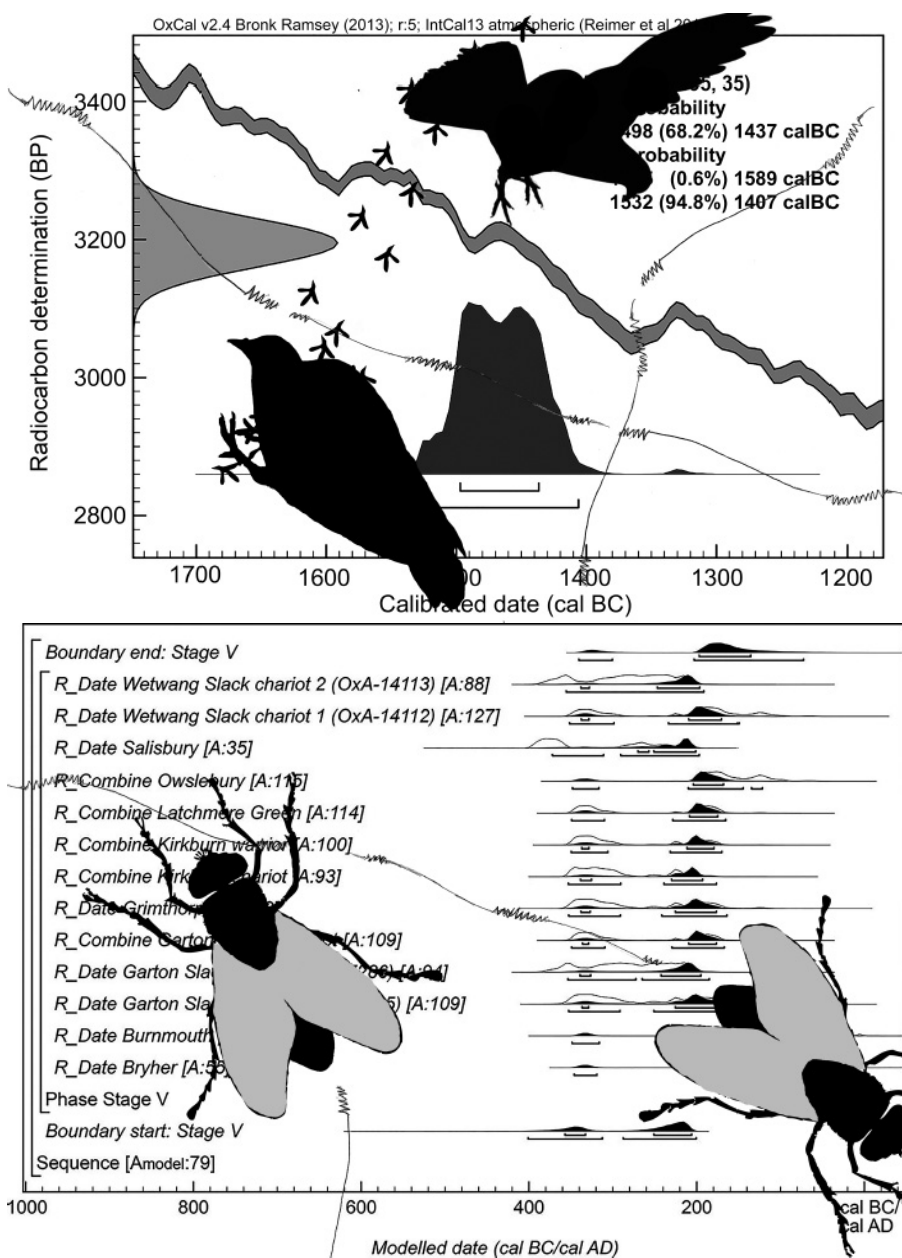


Figure 2.2 Montage of seven different methods to study time and chronology

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3

Timescales and telescopes. Optics in the study of prehistory

Cristián Simonetti

Prehistoric archaeology is commonly defined by its privileged access, via the study of material culture, to a past that precedes the emergence of writing in human history. Official narratives in archaeology tend to propose that the scientific conquest of humanity's deep past is the result of a partial departure from phenomena occurring at the timescales in which human activity unfolds. By carefully establishing measurement and recording techniques, archaeologists would have gained access to large-scale temporal processes. This access often entails transcending the realm of everyday human perception, a tendency shared by many disciplines, such as astronomy and particle physics, which respectively study phenomena at scales substantially larger and smaller than those which humans regularly experience.

Archaeology's views on prehistory have been traditionally informed by its historical ties with the modern scientific values forged during the Enlightenment, particularly those derived from the stratigraphic principles that the discipline borrowed from geology. A number of times throughout its development, this traditional understanding of prehistory has come into tension with approaches that attempt to reconnect the discipline with fields that work at scales closer to human experience, including for instance anthropology. One example is the controversy that has arisen in recent decades around the development of *time perspectivism*. Informed by theories, coming out of the social sciences and humanities, that seek to understand phenomena occurring at a human scale, critics of time perspectivism have systematically challenged its emphasis on a deep past. Examples include supporters of the post-processual and phenomenological approaches in archaeology, as well as archaeology of the contemporary past. The roots of these debates can be traced back to earlier controversies, particularly those between Lewis Binford and

Michael Schiffer over the so-called Pompeii premise, which questioned whether prehistoric archaeology should rely on ethnographic analogies.

Attending to the historical contexts of these controversies in archaeology, I show that similar arguments can also be traced back to the ways in which Sir Charles Lyell fashioned the speeds of different temporal processes to challenge catastrophism in the 1830s. In doing so, I reveal how contemporary notions of scale in archaeology mingle with optical views of time and space that are borrowed from astronomy's expansion of the universe, on which early modern geology modelled its expansion of earth's history. These optical tropes in the study of prehistory would be sustained by the privileged status historically granted to vision in the West, as far back as ancient Greece – a view that was eventually adopted by modern philosophy after the senses became partially mistrusted and subsequently enhanced by optical technology. In contemporary archaeology, these notions of scale would often mingle with analogies from digital imaging, particularly after the spread of information technologies.

Expanding on the tensions produced by this *optical view of time*, I show that the understanding of deep time as dependent on detachment from first-person experience mirrors another more general tension in the comparative study of time-reckoning in anthropology. While scientific measurement has secured objective access to temporal processes beyond everyday experience, as if from nowhere, measurement has in turn distanced modern societies from the rhythms of nature in which traditional societies live. Challenging this dissociation, the chapter concludes by suggesting that notions of time in archaeology speak only of a partial departure from sensory experience.

Speeding up deep time

“The essence of the problem of scale relates to the human desire to overcome the perceptual limitations of our middle-sized world”, Lock and Molyneaux suggest in the introduction to their edited volume, *Confronting Scale in Archaeology* (2006: 1), one of a few pioneering attempts to tackle this slippery subject in archaeological theory. According to the authors, access to vast temporal expanses in archaeology, as well as in related disciplines, is the result of a progressive departure throughout the history of Western science from the limitations of ordinary human experience. Using the development of mapping technology as an example, Lock and Molyneaux suggest a transition from the movement of Cree hunters through the landscape to the modern navigation techniques of contemporary geographers using geographical information systems (GIS). Shifting from a partial view of the landscape, generated by “cognitive or mental maps” located inside the mind, to encompassing “styles of

visualization” or “representation”, modern geographers would grasp the whole of the territory as if “in a single view” (Lock and Molyneaux 2006: 2–3).

The above narrative corresponds to a generalized understanding of how knowledge is produced in archaeology and related sciences. In Britain, this view has been iconically defended by time perspectivism. Led over the past three decades by Geoff Bailey, and inspired by the Annales School, particularly the work of historian Fernand Braudel (1972), this approach begins with the assumption that views of the past are conditioned by different scales of observation (Bailey 2007; 2008; Bailey 1981, 1983). Accordingly, phenomena visible at a particular scale would often remain invisible at scales that are substantially larger or smaller. Bearing in mind the scales at which prehistorians often work – defined as dependent on the systematization of observations beyond ordinary human perception – Bailey argues that the archaeological record has a palimpsest nature that should not be confused with knowledge produced at the shorter timescales with which disciplines such as anthropology, sociology or even history traditionally operate. Particularly concerning for Bailey has been the use of ethnography in interpreting archaeological remains, especially after the emergence of post-processual archaeology (also Castañeda 2008; Hamilakis and Anagnostopoulos 2009; e.g., Hodder 1981).

Over the years, a number of authors have questioned the underlying assumptions of time perspectivism, accusing it of unnecessarily separating the past from the present. Examples include scholars associated with the *literary and interpretative turns* in post-processual archaeology (Shanks and Tilley 1987; Thomas 1996), the *phenomenological approach* to the past (Tilley 1994) and *archaeology of the contemporary past* (Buchli and Lucas 2001; Lucas 2005, 2007, 2010, 2012). Searching for inspiration in fields across the humanities and the social sciences, these authors have questioned Bailey’s traditional emphasis on a deep past, which seems to align perhaps too strongly with the path established by British geologists in the Victorian era for studying long-term processes. These debates systematically illustrate a general contrast between two understandings of the past. While time perspectivism emphasizes the idea of a buried past hidden from everyday observation, its detractors seem to highlight a view of the past as available to sensory exploration and interpretation at the surface level. More generally, these contrasting emphases on depths and surfaces allude to a larger tension between vertical and horizontal appropriations of time and space in the study of prehistory, which resonates with contrasting ways of feeling and thinking in movement (Simonetti 2013).

Authors on both sides of the time perspectivism controversy have identified the connection that these current disagreements share with the debates in the

1980s between Binford and Schiffer – the leading processual and behavioural archaeologists at the time – over the so-called Pompeii premise (also Bailey 2008; Lucas 2007; Murray 1999a; 1999b). Borrowing the expression from Ascher (1961), who originally introduced the famous premise, Binford (1981) and Schiffer (1985) accused each other of wanting to find a perfectly preserved past like the incomparable Pompeii. Schiffer, on the one hand, accused Binford of illusorily wanting to find Pompeii in his tendency to leave site formation processes undertheorized. Binford, in turn, argued that Schiffer's (1976) key notion of an *original systemic context*, in which past people dwelled and which was different from the archaeological context that archaeologists encounter in the present, fell into the Pompeii trap, in that it resembled the ethnographic present that anthropologists study.

Crucial in Binford's and Bailey's arguments against the use of ethnographic analogies to understand the archaeological past is the relationship between speed and scale. Both Binford and Bailey suggested that anthropology and archaeology work at different timescales that unfold at contrasting speeds. For example, Binford, in his argument against Schiffer, stated the following:

It has been clear to me that the *time frame* of ethnography is largely inappropriate for archaeological research. Rates of deposition are much *slower* than the *rapid* sequencing of events, which characterizes the daily lives of living people... . From the beginning of my professional career, I have considered the archaeological record to be an ordered consequence of levels of adaptive organization which are difficult to appreciate directly through the observation of events and episodes in the "quick time" perspective of the ethnographer or the participant in a cultural system. Nor have I been surprised or alarmed to find that the archaeological record does not generally carry the intuitively obvious information regarding the "quick time" events and "human episodes" which one would expect from an ethnographer or a preserved Pompeii.

(Binford 1981, emphasis added)

In framing the time of ethnography and archaeology, Binford contrasts the particular scales and speeds at which each discipline unfolds. In general terms, it is suggested that the long and slow way that the archaeological record is formed cannot be observed through the short and fast sequence in which ethnographic events take place. Similar ideas are evident in time perspectivism. For example, Bailey, in his earliest formulation of the approach, suggested that

concepts and explanations appropriate to the study of contemporary behaviour – necessarily a study of *short-time scales* – may not be

appropriate or sufficient at the *longer time-scales* through which much of the prehistoric record is filtered. The converse, of course, also applies, that concepts applicable to long time-scales may not be suitable or adequate for the study of contemporary behaviour.

(Bailey 1981, *emphasis added*)

Even though the emphasis in this passage is on length rather than speed, in time perspectivism there is again an inversely proportional relationship between both concepts. Longer timescales tend to be slower compared to shorter ones (see, e.g., Bailey 2007: 213). This style of argumentation has a long history that goes back at least to the work of Lyell, who was among the first to think systematically about the relationship between present and past in earth's history. Challenging catastrophist theories that relied on the use of supernatural forces to explain geological changes in the past, Lyell suggested the need to look at past causes from the perspective of those operating in the present, a movement that later came to be known as *uniformitarianism*. In [chapter 5](#) of his *Principles of Geology*, while analyzing the most common errors of *catastrophism*, Lyell developed an argument that has much in common with both Binford's and Bailey's. He suggested that we should pay attention to the quantification of time and how it relates to speed. Lyell's argument is worth quoting at length:

How fatal every error as to the quantity of time must prove to the introduction of rational views concerning the state of things in former ages, may be conceived by supposing that the annals of the civil and military transactions of great nations were perused under the impression that they occurred in a period of one hundred instead of two thousand years. Such a portion of history would immediately assume the air of a romance; the events would seem devoid of credibility, and inconsistent with the present course of human affairs. A crowd of incidents would follow each other in thick succession. Armies and fleets would appear to fall in ruins. There would be the most violent transitions from foreign or intestine war to periods of profound peace, and the works effected during years of disorder or tranquillity would be alike superhuman in magnitude.

He who should study the monuments of the natural world under the influence of a similar infatuation, must draw a no less exaggerated picture of the energy and violence of causes, and must experience the same insurmountable difficulty in reconciling the former and the present state of nature. If we could *behold in one view* all the volcanic cones thrown up in Iceland, Italy, Sicily, and other parts of Europe, during the last five thousand years, and could see the lavas which have flowed during the

same period, the dislocations, subsidences and elevations caused by earthquakes; the lands added to various deltas, or devoured by the sea, together with the effects of devastation by floods, and imagine that all these events had happened in one year, we must form most exalted ideas of the activity of the agents, and the suddenness of the revolutions. Were an equal amount of change to pass before our eyes in the next year, could we avoid the conclusion that some great crisis of nature was at hand? If geologists, therefore, have misinterpreted the signs of a succession of events, so as to conclude that centuries were implied where the characters imported thousands of years, and thousands of years where the language of nature signified millions, they could not, if they reasoned logically from such false premise, come to any other conclusion, than that the system of the natural world had undergone a complete revolution.

(Lyell 1990: 78–79, *emphasis added*)

Here Lyell is challenging the narrow viewpoint of the catastrophist understanding that confused the quantity of time by measuring the long processes of the earth from the perspective of the short time span in the scriptures. But he does so in a very particular way that exaggerates catastrophism, making history appear dramatic. First, events are presented in front of the reader “to behold in one view”, allowing for manipulation, particularly the ability to compress the sequence of events by shrinking them together. Then, a very interesting ingredient is added. The now compressed history of events that can be observed and ordered by the historian is suddenly brought to life, as if it were actually happening in the present. The image very much resembles a *fast motion effect*, but one that somehow antedates the cinema, a technology historically dependent on developments in optics, which had a huge impact in our modern understanding of time.¹

Critical to Lyell’s argument, which had been designed to develop an awareness of the slowness of deep past, is how long and slow processes are suddenly conceived of in terms of faster phenomena taking place at shorter timescales. Being aware of the slow speed of long-term processes requires having a sense for the fast occurrence of short-term ones, often with the result that shorter events are somehow compressed and accelerated. Similar strategies are commonly observed in contemporary archaeology. One example is how Bailey illustrates the contrast between different timescales by looking at the erosion of landscapes in the northern Mediterranean. Extending the scale of analysis back to 100,000 years – questioning interpretations that suggest erosion has been produced mainly by human action after the last glacial period in the past 10,000 years – Bailey proposes: “Indeed the scale of erosion quite *dwarfs* the supposed impact of human intervention in the postglacial period”

(Bailey 2007: 211, emphasis added). A similar point is offered by Gosden and Kirsanow, who, also inspired by Braudel, begin their analysis of timescales in archaeology by contrasting archaeology's *long durée* with the scales of what they term "short duration disciplines" (Gosden and Kirsanow 2006: 27), which includes sociology and anthropology (history is left in the middle). According to Gosden and Kirsanow, "of the disciplines concerned with human action the span of millennia and millions of years available to archaeology dwarfs all others" (Gosden and Kirsanow 2006: 27). As occurs with Lyell, in Bailey, as well as Gosden and Kirsanow, an awareness of the long and slow results from the dwarfing of the short and fast, as if observers were suddenly switching lenses in an optical device, a point to which I now turn.

Modern ocularcentrism

In time perspectivism, optical analogies are often added to the strategic compression and acceleration of timescales. According to Bailey, using processes in the present as an explanation for the past

can be linked to the construction of a large and elaborate telescope on a satellite platform orbiting just beyond the earth's atmosphere. The telescope is then put to use, but instead of being directed outwards to explore the origins of the universe, it is directed earthwards in order to demonstrate that, from the point of view of an individual observer standing on the ground, the earth's surface would appear to be flat.

(Bailey 1983: 180)

Bailey (2007) uses similar analogies when referring to the particular way that time perspectivism works with palimpsests in the archaeological record. According to him, this should involve both microscopic and macroscopic moves. The microscopic is the "tendency to seek understandings by working down through successively smaller scales" (Bailey 2007: 209). The macroscopic, on the other hand,

seeks understanding by placing phenomena in a widening perspective of large-scale comparison... . In this case we accept the palimpsest for what it is as a general tendency, and in effect *shrink* the palimpsest to a single episode, a single data set, in order to examine it in the wider comparative context of other such data sets.

(Bailey 2007: 210, *emphasis added*)

The emphasis on optics in time perspectivism recalls Lyell (Lyell 1990: 84–85),

who also used analogies with astronomy in his argument against catastrophism.² In historical terms, it should not surprise us that the telescope image for understanding the past became so influential in geology. Early geologists considered Galileo's invention of the telescope a stunning accomplishment of modern science that not only allowed the West to expand its narrow geocentric perspective, inherited from mediaeval times, but that also became a model for science in general. Lyell, for instance, towards the end of the third volume of *Principles*, compared the expansion of the universe in astronomy with the expansion of earth's history in geology (1991: 384–385). More broadly, Lyell's title echoes Newton's masterpiece, the *Principia Mathematica* (Rudwick 1990: xiii). Consequently, there has been a tendency among historians of geology to identify a progression from the discoveries of astronomy to the discoveries of geology. Coincidentally, Martin Rudwick, a historian of geology, has described Lyell's arguments against catastrophism (analyzed above) as a conceptual move that “*telescopes* events together, giving an illusion of swift and extraordinary happenings and astonishing coincidences” (1990: xviii, emphasis added).

Both astronomy and geology fought against conservative pressure from the Catholic Church, the former expanding our conception of space, the latter expanding our understanding of time (see, e.g., Rudwick 1999; Toulmin and Goodfield 1965). Archaeology has not remained isolated from this fight. Evidence of human prehistory also presented a threat to biblical time, as occurred famously with the discovery of human remains alongside extinct megafauna at the Brixham cave. Lyell himself was keen to divulge this particular discovery, doing so in a speech to the British Association for the Advancement of Science, delivered at Aberdeen in 1859 to announce the publication of Darwin's highly controversial *On the Origin of Species* (Darwin 1917; Gosden 2003; Lyell 1859). Unsurprisingly, nowadays Lock and Molyneaux describe archaeological knowledge as a direct heir of astronomy's efforts to transcend ordinary human perception. In the introduction to *Confronting Scale in Archaeology*, their narrative of archaeology's conquest of long-term scales begins with Galileo's invention of the telescope, which bolstered the heliocentric view of the universe and led to his imprisonment by the Catholic Church. In Lock and Molyneaux's explanation, “the ability to transcend the limitations of human scale seemed too close to the omniscience of God” (2006: 2).

This view of knowledge, dependent on the capacity to inspect phenomena from afar using optical devices, is supported by the particular role granted to vision in the West. This primacy of vision can be traced as far back as Ancient Greece, but it becomes particularly prominent during the modern Enlightenment. An example can be found in Descartes, whose philosophy was

informed by astronomy and who dedicated an entire book to the subject. At the start of *Optics*, Descartes states: “Since sight is the noblest and most comprehensive of the senses, inventions which serve to increase its powers are undoubtedly among the most useful there can be” (1965: 65). It is no wonder that Descartes’s philosophy involved a search for *clear* and *distinct* ideas, and that the Enlightenment became dominated by metaphors related to light and vision (Classen 1997; Howes 2006; Jay 1994). This provides clues as to why early historians of science have described the effects of the so-called scientific revolution, which guided industrial societies into modernity, as comparable to putting on a new pair of spectacles (Shapin 1996: 2).

Beyond astronomy, ocularcentrism in Western thinking has also had a significant presence in mapping, where the surface of a landscape is often inspected from a bird’s-eye view. Once again aided by optical devices, cartography has facilitated a progressive compression that permits the visualization of vast expanses of territory as if from *everywhere* (also Cosgrove 1994; Ingold 2000). This synoptic view would also be replicated in how the forefathers of geological mapping, particularly Cuvier and Smith, tried to map earth’s history by compressing it into single cross-sections introduced within traditional two-dimensional cartographies. These sections represented ideal abstractions from real patterns of deposition and were drawn using regular lines and colours, so that observers could “hold in one view” the mineral riches of great empires (Simonetti 2013). Remnants of this synoptic view survive in the recording practices that archaeologists perform on a daily basis as they compress long and complex histories of deposition into diagrams to be observed, again, at a glance (Yarrow 2006).

It is worth noting that optical tropes used in arguments accelerating and compressing the long and slow have not remained unchanged over the years. For instance, in contemporary archaeology, the telescoping effect produced by arguments against the use of ethnography in prehistory studies tends to incorporate elements from present-day science. The latter is visible in how Bailey addresses the relationship between *scale* and *resolution*, which at times resembles the fixed properties of digital photography, fundamental to both contemporary astronomy and mapping. According to Bailey, knowledge produced by the social sciences “emphasizes small-scale processes which vary rapidly over short time spans; but these are processes which are likely to fade out of focus over long time spans because of the decreasing resolution of archaeological data” (Bailey 1983: 181).

Scale and resolution are inversely related, corresponding respectively to the relative extension of time and the detail at which a particular phenomenon can be analyzed – both of which vary depending on the perspective. From the viewpoint of time perspectivism, when we focus on the full extension of the

long term there is a loss of resolution, which is fundamental for understanding short-term scales. However, *digital resolution* should not be confused with *optical resolution*. Optical resolution refers to the capacity of an optical apparatus to differentiate between two randomly selected points, which varies depending on the scale. Digital resolution refers to the number of light points on a fixed two-dimensional surface. Even though Bailey understands perspectives using the image of an early modern telescope, he seems to confuse it with the idea of time spans as having the fixed resolution of a digital image. Here, resolution is no longer a property of the emerging perceptual relationship between the observer, his instrument and the thing observed, but becomes a constant property of the thing observed, despite that inhabitants of the past and archaeologists of the present always encounter a *world in motion*, and not a still image of it.

Aligned with modern values, contemporary digital optics suggests a radicalization of detachment, capable of turning the earth into a flat surface that is fixed in time (Bailey 1983: 180). Not only it is possible to de-centre oneself, taking a universal position from nowhere that is independent of any particular viewpoint or personal history, but also prehistory is presented as a given fact. Accordingly, even though Bailey (1981: 107) relies explicitly on Einstein's *theory of relativity* in physics and the inclusion of the observer to understand the observed, in time perspectivism – as ultimately occurs with the theory of relativity – the observer's point of view neither extends to a consideration of aesthetics nor to the history of the discipline. In time perspectivism, points of view are defined by supposedly universal categories, like short or long in scale and coarse or fine in resolution, that neglect both the experience of having a point of view and the history of technological developments that sustain them, including the history of optics. In short, what Bailey seems to have forgotten is that *time perspectivism is nothing but another perspective on time*.

Nonetheless, knowledge of the vast in time requires understanding processes occurring at the level of human sensory experience. An awareness of deep time in the case of both Lyell and his contemporary followers involves shrinking past events to make history look dramatic. This trick depends on having not only a sense for fast processes unfolding at short timescales, but also a sense of how scientists have engaged historically with optical devices, from the analogue to the digital. Ultimately, as occurs with scientific accounts of space, we should bear in mind that time is not pre-ordered by scales (Latour 2005; Massey 2005). The disciplinary politics that divide archaeology and anthropology result from the enactment of particular time concepts that have particular histories, with the result that the temporal character of a discipline is never defined essentially, but both materially and relationally.

Bodies of knowledge

The analysis above has revealed the ways in which knowledge in prehistory is narrated as an irreversible transition from ordinary perception to detached observation aided by optical technology. In turn, the argument has revealed the ways in which this modern scientific achievement has been defended telescopically against the influence of knowledge acquired through ethnography. However, it is worth noting here that anthropology has also borrowed from physics and astronomy. Like the geosciences, anthropology has historically suffered from what geographer Doreen Massey (2005) has described as *physics envy* (also Frodeman 2003). Lévi-Strauss, for instance, explicitly compared anthropology with astronomy, arguing that structuralism, the movement which he helped to established, resulted from a similarly detached form of observation. According to Lévi-Strauss, “*the anthropologist is the astronomer of the social sciences*: His task is to discover a meaning for configurations which, owing to their size and remoteness, are very different from those within the observer’s immediate purview” (Lévi-Strauss 1963: 378).³

In the same spirit, the comparative study of time-reckoning has often relied on a similar narrative of detachment, in which measurement and recording, aided by clocks and calendars, have progressively distanced humans from the rhythms of life, a process that culminates in modern science. This tradition is often traced back to Durkheim (1915), who in his magnum opus, *The Elementary Forms of Religious Life*, circumscribed sociology to the study of *social facts*, that is, collective representations of a supra-individual character. Using time as an example, Durkheim noted an explicit distinction between the *sense of time* and the *category of time*. While the former fell under the jurisdiction of disciplines such as biology and psychology – in that it related to how an individual experiences and orientates him or herself in time – the latter, for Durkheim, was the rightful subject of sociology; it varied across different societies and was irreducible to individuals. This separation of sense and concept has persisted over the years in the social study of time (also Adams 2004: 107; e.g., Sorokin and Merton 1937; Zerubavel 2003). In addition, in anthropology arguably the vast majority of theoretical accounts of time-reckoning have been no more than commentaries on Durkheim’s theory (e.g., Gell 1992).

A number of conceptual antinomies, similar to that proposed by Durkheim, have also historically populated the Continental philosophy of time, most of them proposing experience as an antidote to the progressive alienation created by time measurement and recording. Examples include James’ (1952) *actual* versus *specious* present, Bergson’s (2001) *extension* versus *duration*, and Heidegger’s (1962) *time* versus *temporality*. Analogous antinomies can also be

found at the birth of analytic philosophy's study of time, particularly in McTaggart's (1908) *A series* and *B series*. Along with Durkheim's separation of sense and concept, these contrasting terms have been at the core of comparative studies of time-reckoning in recent decades (e.g., Gell 1992; Munn 1992).

Conceptual antinomies in the study of time echo similar antinomies in the study of space. Perhaps the clearest example is the tension between the concepts of *space* and *place*, influential in geography and related disciplines, whose scholars often note how the mapping of space has distanced modern societies from their everyday sense of place (see, e.g., Bender 1993; Casey 2001; David and Thomas 2008; Feld and Basso 1999; Hadji and Souvatzki 2014; Ingold 2000; Tilley 1994). Together, temporal and spatial antinomies would correspond roughly to the separation between *nature* and *culture*, on which the edifice of Western knowledge rests. While nature is written in singular form and is defined as *homogenous* across human collectives, cultures are written in plural form and defined as *heterogeneous*. Temporally speaking, the proliferation of different cultures is seen as an epilogue to the long and slow evolution of nature. Nature would have come to a halt as soon as culture takes over, creating a forking line in evolution and development, one organic (natural) and the other supra-organic (cultural). This sequential separation of nature and culture has created a dual understanding of humans, characterized by a contrast between universal determinations received as a member of a species, subject to environmental pressures, and the freedom granted by the capacity for signification. These two aspects of the human are often respectively referred to using terms such as *humankind* and *humanity* (Ingold 2000), and they are at the core of the *psychophysical dualism* that has historically dominated the social sciences (Costal 2006).

A transition from *humankind* to *humanity*, from *experience* to *measurement*, and from *sense* to *concept* is precisely what Bailey offered us in his early account of the evolution of time concepts. According to him, in the last two million years human understanding has expanded "initially through the evolution of more complex brain structures, and in more recent times through conceptual changes, notably in the gradual replacement of *cyclical* by *linear* conceptions of history" (Bailey 1983: 167, emphasis added). Although Bailey was writing more than three decades ago, similar argument have continued to circulate in archaeology, particularly among scholars who have taken on the task of critically analyzing their own disciplinary understandings of time (see, e.g., Artelius 2001: 9). Lock and Molyneaux's contrasting of Cree hunters and geographers, on which this chapter began its analysis, is an example that replicates this narrative by assigning these categories to two societies currently living in the present.⁴

Nonetheless, as [Figure 3.1](#) proposes, Bailey's argument depends on an infinite regression, in that the transition from cyclical to linear time is already a linear transition that places non-Westerners before and below modern societies. Such arguments – prominent in the history of anthropology and archaeology, although strongly criticized in recent decades – tend to regard indigenous societies as stranded in an ahistorical present (Sahlins 1972). Envisioned in a Darwinian scenario, hunter-gatherers would be conceived of as incapable of recording the past and anticipating the future, struggling endlessly for survival on limited resources. Due to this incapacity, non-Westerners would also be regarded as *living fossils* from modern societies' past, with the inevitable result that indigenous societies are denied *coevalness* and the right to speak for themselves as inhabitants of the present (Fabian 1983)

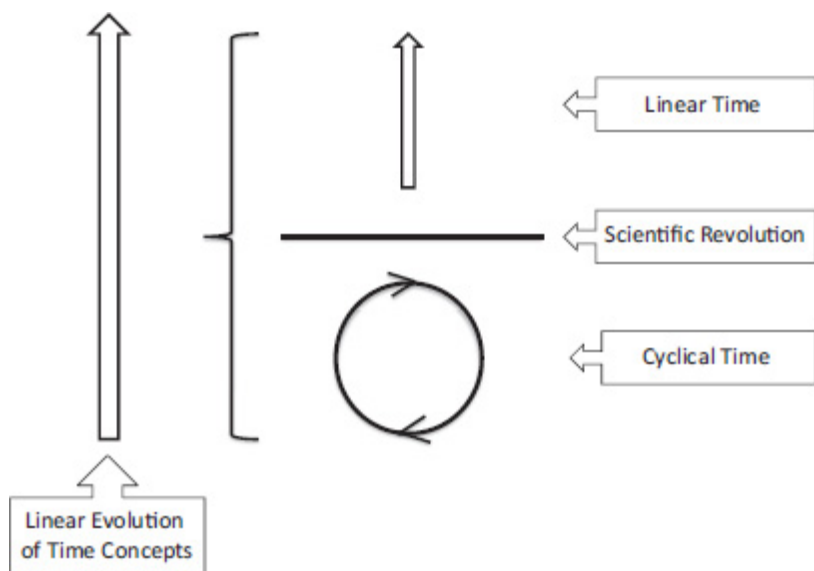


Figure 3.1 Linear evolution from circular to linear time

However, as Leach rightly suggested long ago, in his analysis of the representation of time, “when we describe such sequences as ‘cyclic’ we innocently introduce a geometrical notation which may well be entirely absent in the thinking of the people concerned” (Leach 1965: 242). Going a step further from Leach, who also regarded concepts as social institutions divorced from feeling, we should acknowledge that lines and circles are notions of time that, like most others, refer to motion in space. The latter is the case especially for the concepts that sustain the debates (analyzed above) over the separation of knowledge in archaeology and anthropology, including the key notion of *deep time*, which in Bailey's words “is what gives archaeology its distinctiveness as

an intellectual discipline” (2007: 198). In using the concept “time depth” in everyday speech, expert archaeologists would often perform downward-pointing gestures, unconsciously referring to the practice of excavation and soil stratigraphy. These gestures contrast with how most speakers of Indo-European languages refer to a future in front and a past behind, based on the experience of moving horizontally across the earth’s surface, again without noticing it. Unlike them, archaeologists would move forward (downward) into the past. Conversely, archaeologists would often gesture and represent chronologies vertically, which contrasts with how historians writing in Latin scripts narrate time horizontally, as a left-to-right movement. Dependent on practice and unfolding in movement, notions of time would not constitute abstract entities, enclosed within the archaeologist’s mind, but would be part of a complex ecology of concepts that is gravitationally situated in practice (Simonetti 2018).

A similar argument regarding conceptualization could be made, in turn, for astronomy and physics. Unlike archaeologists, whose trowels navigate downwardly to remove soils that have accumulated vertically over time as a result of gravitation, astronomers often deal with the past by pointing their telescopes upward to gather light from events which, for the most part, occurred long ago. Unsurprisingly, the universe is also conceptualized as having a “depth” with temporal connotations. For instance, in an exhibition opened in 2012 at the National Museum of Scotland, in Edinburgh, there was a video about the origin of the universe in which the following was suggested: “As we look deeper into space the starlight comes from further and further back in time”. Mirroring in some ways the trowels and trenches of archaeology, telescopes and stars would be regarded in popular science as, respectively, *time machines* and *windows into the past* (e.g., Ing 2011).

Regarding contemporary physics in general, time is conceived of as a fourth dimension that is different from the three axes of Euclidean space (x , y , z). Nonetheless, it could be argued that in physics events are still *located* in time, as they are in space, and that time is still sometimes represented as a vertical axis that runs from bottom to top. Whether these aspects systematically influence how astronomers understand time is an open question that requires a comparative study of conceptualization in ways that are responsive to movement and gesture. Nonetheless, there is no reason to believe in principle that conceptualizations of time in physics and astronomy, as well as any other discipline for that matter, is somehow divorced from the body and its environment. Feeling and thinking entangle in the conceptualization of time, to the point where it is ultimately impossible to separate them.

This view contrasts significantly with how Gosden and Kirsanow explain the scant attention that theoretical archaeologists have given to time. Relying

on Lakoff and Johnson's (1980, 1999) theory of *conceptual mapping*, Gosden and Kirsanow argue that time has passed unperceived to archaeologists because it can only be apprehended metaphorically with reference to space.⁵ However, time should not be seen as a surrogate for space that is only peripherally embodied through the creation of a *conceptual map* crafted at an abstract cognitive level. Doing so would be to fall into the trap of a common Western ocularcentrism through a detached and flattening cartographic tyranny, assisted by optics and digital imaging.⁶ The entanglement of time concepts and our sense of kinaesthesia forces us to acknowledge that time is not a mere surrogate for space. Rather, time and space coincide in movement, in that most time concepts present themselves as trajectories that unfold gesturally.

Notes

- 1The original hand-cranked cinematograph, which made photograms run at irregular intervals, played a role in developing what the historian Stephen Kern described as "differential speed," a characteristic aspect of how time came to be experienced by people living in industrial societies (1983: 130).
- 2Even though Bailey (1983: 174) has argued, based on Gould (1965), against a *substantive uniformitarianism* that suggests a steady rate of material conditions throughout history, he has retained a *methodological uniformitarianism*, which asserts the temporal invariance of laws as a basis for inference. Accordingly, the influence from Lyell's style of argumentation is not surprising.
- 3The field of optics has also been influential in anthropological accounts of evolution (see, e.g., Ingold 1986: 169).
- 4It is worth stressing the similarities between Lock and Molyneux's contrast between Cree hunters and geographers and Bailey's contrast between pre-modern and modern concepts of time. The study of concepts, in Bailey's (1983: 180) terminology, would normally fall under the jurisdiction of what he defines as *internalist approaches*, which work at short timescales and are, therefore, beyond the scope of the long-term archaeological perspective, which could be defined as *externalist* in opposition. Accordingly, in Bailey's theory, an evolutionary history of time concepts is somewhat a contradiction in terms.
- 5The argument coincides with how Gosden (1994) begins his seminal analysis of time in archaeology by noting an explicit separation between *experience* and *measurement*.
- 6As occurs with Lakoff and Johnson, a general cartographic tyranny dominated by ocularcentrism has prevailed in the social study of time (e.g., Zerubavel 2003; Gell 1992).

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Ontology unveiled, serpents remembered, time reconfigured

Peter R. Schmidt

Prelude

Indigenous theories of historical knowledge and time may capture the interest of Western scholars, but when they do it is a radical departure from the dominant discourse in Western archaeology (Kehoe 2015, forthcoming), resulting in their denial as viable, and then being shuffled off-stage once again. In a recent treatment of ontology in applied archaeology (Stump 2013), serious historical engagement with other ontologies is viewed as insidious rather than informative empirical evidence, even seen as threatening conventional historical methods and protocols, namely, “to call for the incorporation of local conceptions within western historical interpretations *is to risk undermining one’s authority as a historian*, because the historical method *requires the rejection of any conception of reality that conflicts with one’s own*” (Stump 2013: 276, emphasis mine). Such an absolute, exclusionary, and imperial perspective maintains that other ontologies undermine the canons of historical interpretation. Rather than listening to and learning from the ontologies of history-making peoples, this view argues that non-Western ontologies omit what we (in the West) comprehend as chains of causality, thus their consideration and use in our archaeologies defeats the principles of linear, progressive time in archaeology. Such denial of other ontologies introduces confusion and casts doubt on attempts to learn from other time-space realities. My view that we must understand “African contexts and distinctive values of time and space in negotiating interpretations of the African past” (Schmidt 1996: 120) has been characterized as failing to make clear how this has been achieved, and “whether or *how this has avoided compromising the tenets of western historical knowledge*, or with whom this negotiation has taken place”

(Stump 2013: 277, emphasis mine).¹

This perspective ipso facto precludes serious consideration of how non-Western ontologies enter into how we as archaeologists may use different realities to arrive at inclusive histories that examine multiple forms of evidence. This staunch defence of Western canons of historical science misses the view that writing history is an inter-subjective experience. Such ethnocentric characterizations invite multiple discourses to address and overcome this denial. I argue here that when alternative local ontologies arise amid our archaeological practice, we are compelled as part of our responsibility as historians to account for how they structure physical phenomena that relate directly to space-time issues. These principles were vividly illustrated some 37 years ago when I learned first-hand how practicing an archaeology more vulnerable to changes and critical sometimes unfolds in unexpected ways, to wit:

I was mapping out the day's work assignments, crouched against a banana plant. My excavation team was gathered in a large semi-circle around me as I discussed the activities ahead. Looking up to answer a question, I found a *huge* black snake just a half meter from my face. It had slithered through the group without being noticed and had approached me – rising and stopping just short of my face. What I remember best are the large shining yellow eyes in a head that was as big as my fist. I froze, speechless and unable to move. “Snake!!” yelled my nephew, three heart beats later. At that shout, I sprang from my crouch and landed about 2 meters away. The snake, nonplussed by all the commotion, slowly slid away under a hedge. It measured about 5 meters in length and was as thick as a man's upper arm. “Don't touch it!” one of the workmen warned those who were starting to shout that it had to be killed. “It is *Enkoratima*, the snake of Rugomora Mahe”.

Almost immediately I sensed that I had been visited by the *muzimu* or ghost/spirit of King Rugomora. After we had settled down and the snake had slithered away, a nearby resident warned us, “Tomorrow his children will come to visit”. The next day events unfolded rapidly when, true to the words of the neighbor, additional snakes visited members of the team. It started when a smaller *enkoratima* (a mildly poisonous constrictor) dropped from the shrine tree into an excavation pit, landing behind one of the crew; this was followed by two other close sightings within ten minutes. Everyone stopped work. I realized with a sense of dread that we had not built critical bridges to the ancestors.

(Schmidt 2009a, 2017)

I gave instructions to start back-filling the excavations immediately and to prepare for departure. Nothing justified further disruption. No science, no quest for further affirmation of initial earlier findings could be sustained against such powerful spiritual forces. I recognized that I had not practiced my usual meticulous practice of ritual sacrifice to appease the ancestral spirits. Postponing the sacrifice because we were unable to find a suitably colored goat, we had failed in our duties and had invited displeasure.

(Schmidt 2009b, 2017)

I often think back on this poignant lesson about respect for the ancestors as a telling moment, an epiphany. I came to the realization that archaeology indeed was inextricably interwoven with the spiritual world, a world of the ancestors that impinge upon our awareness that the scientific practice of archaeology is not only dependent upon the agreement and guidance of the ancestors but also a natural part of unveiling the central roles that ancestors played and continue to play in the daily lives of people (Schmidt 2009a, 2017). I propose to realize such goals by unveiling of Haya ontology – spirit possession of animals – that leads to a recognition that we must come to terms with worldview and ways of constructing time that differ from our theory-making, using the umbrella concept of relational ontologies (e.g. Alberti and Bray 2009; De Castro 2004; Zedeño 2009).

Haya ontology unveiled

My awareness of the role of ancestors and animism took on a sharper focus during ethnographic and archaeological fieldwork in Buhaya, north-west Tanzania ([Figure 4.1](#)). On a high ridge overlooking the western waters of Lake Victoria, I was drawn to the site of an enormous shrine tree that once dominated the landscape (Schmidt 1978). Local oral traditions identified it as Kaiija, which means the “place of the iron forge”. Before its recent destruction (Schmidt 2010), it was an important ritual centre celebrating the memory of the earliest iron production in eastern Africa. As a place of ritual power associated with reproduction and renewal, the shrine over time became the focus of struggles over its control and the legitimacy of its antiquity and ritual potency conferred to those associated with it. After a year of ethnographic research, I was led to this shrine by elderly Haya who had mentioned it repeatedly in their oral testimonies and wanted to share its more specific histories with me.

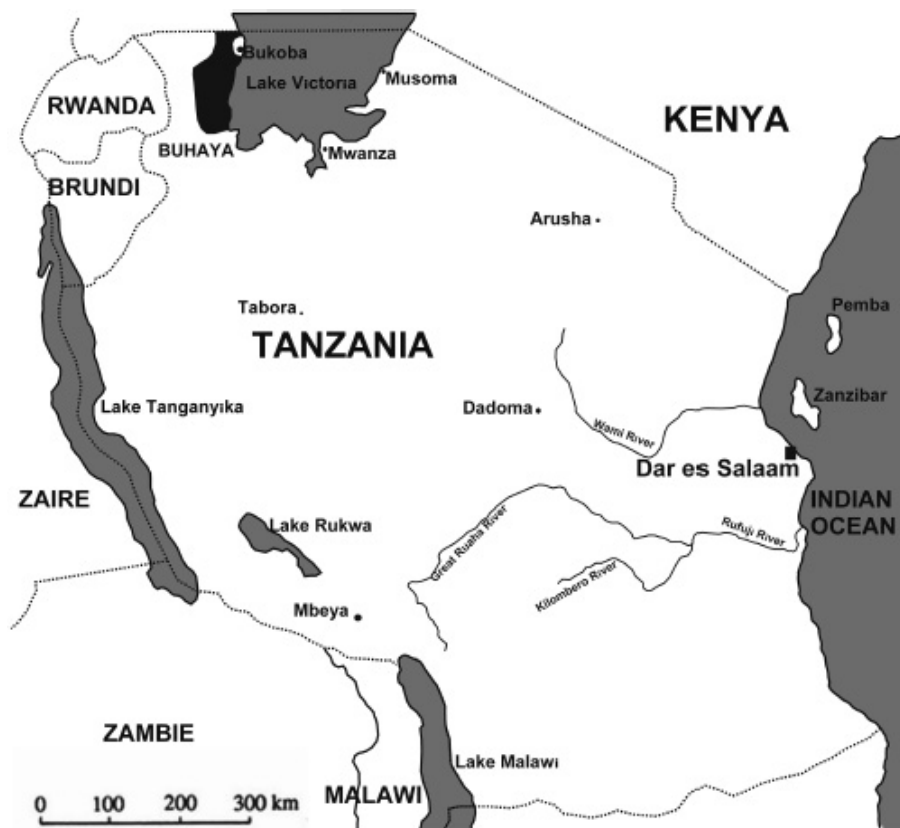


Figure 4.1 Buhaya culture area is in the western part of the Kagera region of north-west Tanzania

The elders' oral traditions very specifically mentioned the exact place where a 17th-century king of the Hinda dynasty (a pastoral people from outside Buhaya) had built an iron tower to the heavens, only to have it collapse and fall on a neighbouring hillside. When elders first visited this site with me, they volunteered that they were curious to know if the forge was still there, if indeed the stories they had told for generations were an accurate depiction of the past. They encouraged me to excavate at the place they pointed out as the "place of the forge". It is notable that this community-led excavation goal marks one the most prescient, early initiatives to engage community archaeology (Schmidt 1978, 2017). I did as they suggested, placing the very first test excavation exactly where they said the forge was located. Much to my surprise and their obvious delight, an iron forge was revealed at about a meter's depth. Was this just blind luck? No, it was the strength of ritual performance over hundreds of years at this place, again and again, leading to an indelible memory through deep time tied to place. This story proved instrumental in locating the forge where the iron was manufactured for the tower – immediately beneath the Kaiija tree shrine. While the forge was

precisely where the knowledgeable old men said it would be, it was *not made* in the 17th century. It dated to the late first millennium BCE.

This historical enigma took several years to unravel. Study of the oral traditions came to show that kingly histories had been mixed with ancient Cwezi (Bacwezi) oral traditions to create a new history,² one in which fragments of Cwezi history were incorporated into the royal legends to create the illusion of great antiquity for the Hinda interlopers (Schmidt 1978, 2006, 2013).³ In other words, the sacred shrine was appropriated by the Hinda rulers to create a more legitimate veneer for their rule. They were neither indigenous nor were they iron workers, but their control of Kaiija shrine was critical to their political control over both groups. The oral traditions also clearly mentioned that the iron tower had two major legs, one of which was located at Kya Rugomora shrine in Nkimbo, about 1 mile to the south-east of Kaiija. This was also a sacred place, the place where I had encountered King Rugomora as a snake in 1980 (Figure 4.2).

The oral traditions at Kya Rugomora shrine were controlled by a widely recognized spirit medium or *mbandwa* of the spirit (Mucwezi) of Wamara.⁴ This diviner told stories that included important clues about nature spirits associated with these places before the Cwezi cult took over the shrine, likely sometime in the early part of the second millennium (Schoenbrun 1998). A key part of the ritual practice at Kya Rugomora shrine was the presence of a leopard at each New Moon ceremony, a ritual associated with fertility and renewal. During these rituals of renewal, a leopard stayed in Wamara's shrine house, a phenomenon that unites *mbandwa* practices with territorial nature spirits called *misambwa*.⁵ With this background, and suspecting a deep time ritual site, we embarked on limited excavations in 1970; there was no taboo about archaeology and with the encouragement and assistance of the shrine's spiritual caretaker we documented a well preserved Early Iron Age pot burial at the base of the primary shrine tree, apparently left there as an offering (Schmidt 1978). At this time, we were aware of the leopard's association with the shrine but had heard no mention of snakes.

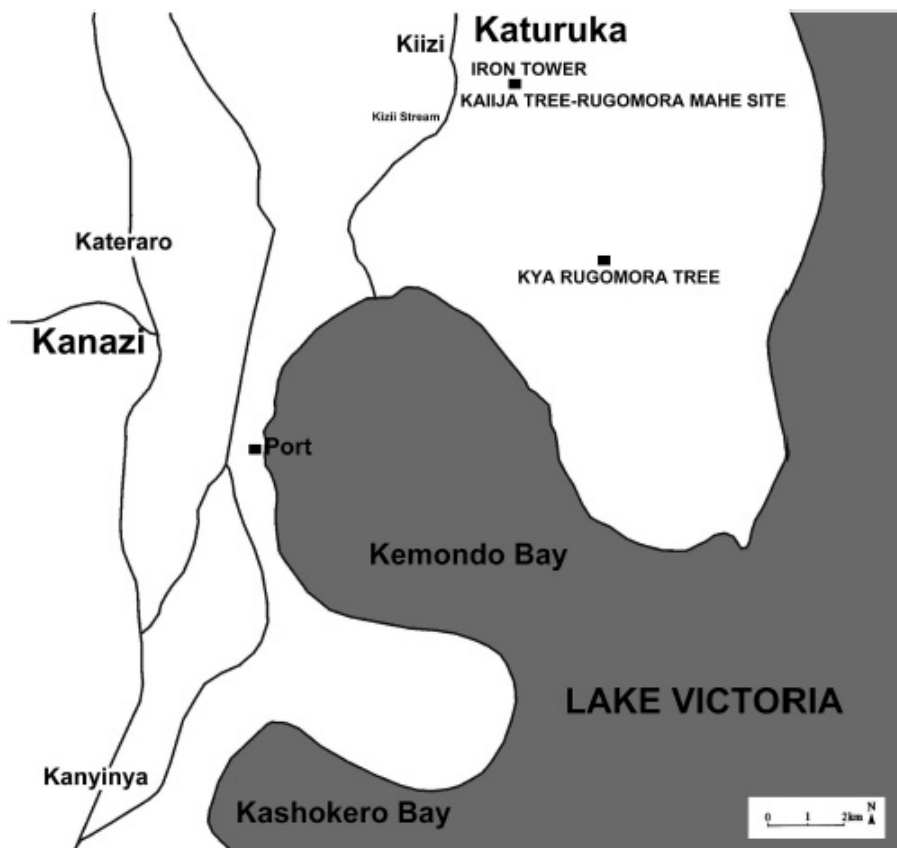


Figure 4.2 Map of Kemondo Bay area with two prominent shrines marked as Kya Rogomora and Kaiija, the latter in Katuruka village

My investigations at Kya Rugomora shrine ten years later in 1980 intended to gather additional evidence about ritual activities and the shrine's antiquity. We obtained sparse results however and were considering closing investigations when King Rugomora intervened. He appeared as a snake, not a leopard – Wamara's spirit vessel. This experience initiated a shift in my worldview, as I struggled to fit Haya ontology into the world I understood. This remains an ongoing and challenging task, as only bits and pieces of Haya ontology remain because of the profound transformations introduced by Christianity. Understanding earlier Haya ontology is partly informed guesswork and partly incremental understanding as more pieces of the puzzle have come to be unveiled over the years.

An important characteristic of Kya Rugomora shrine is its association with *misambwa*, local and territorial spirits. It is reasonable to suggest that the pot burial at Kya Rugomora shrine was related to territorial spirits – not to the Cwezi who later controlled the shrine. Through the avenue of *kubandwa* (spirit possession), these local spirits initially took the form of leopards and snakes.

Through time, as specific social groups became identified with these sacred places through ritual practice and residence, ancestral or *bazimu* spirits appeared in the form of leopards and snakes through the practice of *kubandwa*, showing a capacity for change and flexibility that ensured continuity of spiritual potency. The territory usually belonged to the most prominent social group in the area, which inevitably also provided an *embandwa* (spirit medium) to service the ancestral spirits who appeared as snakes and leopards. The range of movement of snakes and leopards – from their domestic residences to their ritual residences – often incorporated and transformed large expanses of landscape into sacred places, most prominent of which were trees such as Kya Rugomora and Kaiija and their surroundings. Thus, the movement of spirit-snakes and spirit-leopards imbued the landscape with similar characteristics, a relationship of contiguity out of which integrated identity arises (Ricoeur 1977; Schmidt 2006, 2010; Zedeño 2009). Haya ontology in this instance structured the landscape into sacred places. It also elided time, consigning it to the unseen, unexperienced, yet comfortably familiar, a sense of shared social place. Relationships of contiguity, drawing on the potency of derivative tropes such as metonymy, have the power to upset relative time relationships – a primary issue examined in this chapter. Working within and next to alternative ontologies, we learn to examine proximity (spatial and syntagmatic, in texts) for possible contiguities that allow leopards and people to share common landscapes and pulses of life, especially during rituals of renewal when what we consider time (past) is made coeval with present time.

We now understand that over several millennia in Buhaya key transformations occurred in the rituals associated with ancient sites. As earlier mentioned, at Kya Rugomora shrine a leopard came during every New Moon ceremony to live in the spirit house of the *mucwezi* (spirit), Wamara, ensuring prosperity and fertility; these are key events deriving from ancient times and also an integral part of the New Moon ritual cycle of renewal. These sacred trees of great antiquity eventually became central Cwezi shrines under the control of the Bayango (iron working) clan (Schmidt 1978, 2006), showing the capacity of the Cwezi cult to accommodate local beliefs, appropriate powerful places with territorial associations, and wrap together religious with territorial control. Ontologically, there was no separation amongst any of the components – spirit, snake, sacred place, tree, and open travelled-upon landscape.

The Hinda takeover of Kya Rugomora and Kaiija shrines marked a conscious effort to extend hegemony over local rulers/religious leaders situated at places of great antiquity and potent transformations – dating back to the beginnings of the Early Iron Age. The Cwezi emphasis on fertility, particularly healing

infertility, draws directly from earlier eras when territorial cults focused on precisely the same issues. Thus, the Cwezi appropriation of the deep time animist idioms at these sacred places is consistent with Rugomora's *muzimu* (ghost/spirit) living in a serpent.⁶ This action, effected by Cwezi spirit mediums in the employ of the royal house, is the ultimate appropriation – the royal spirit displacing indigenous ancestral spirits to ensure continuity of Hinda domination.

A large constrictor such as *enkoratima* also resonates with local and wider regional beliefs about a python cult (Roscoe 1909; Tantala 1989).⁷ Tantala traces out contests between an ancient python cult and its rivals in western Uganda, pointing out the widespread practice of feeding snakes milk (Tantala 1989: 617). There are numerous references, though little detail, about python cults in the region in precolonial times. For example,

Pythons are held to be sacred and in some places offerings were made regularly to them to preserve the people. A few men kept pythons in their house, taming them and *feeding them on milk* with an occasional fowl or goat.

(Roscoe 1923: 44, *emphasis mine*)

In Ankole kingdom just north of Buhaya in Uganda, the spirit of the king's sister would enter a large serpent upon her death (Roscoe 1923: 61), and in Burundi – just to the south-west – the soul of the queen-mother was thought to possess a snake, another affirmation that royal houses used local methods of spirit possession to ensure their continuity (Lestrade 1972: 164; Tantala 1989, nt.23:643).

The snakes at Kya Rugomora take on greater meaning when we examine them against the backdrop of how peoples' lives were interlinked with the spirit world and the structuring of time. Relationships of contiguity are acted out during transformational rituals, diminishing time-space distances and elevating identity and coeval time processes that leave signatures on the landscape, signatures that take the form of physical remains such as pit features found within shrines, ritual performance areas, and sacred places. These relationships have deep interest to archaeologists trying to piece together linkages among native ontologies, time, and material remains.

Reflections on ontology

These experiences and observations lead us to ask if and how archaeological theories of time can better accommodate ontological structures in other cultures and create a more vulnerable practice of archaeology under conditions

where archaeology resists any thought of vulnerability. Eduardo De Castro (2004) captures the consequences of this archaeological self-absorption when he observes that the real issue is how to configure the people as theoretical agent[s] rather than as passive “subjects”. Though De Castro means living people, his observation applies as much to those living in other times as today. Ancillary questions immediately arise, such as: how can we represent other worlds when we do not comprehend their ontologies (see Meskell 2004, for an early query)? On a more practical scale, how we can compare our own culture with others – finding ontological affinities or discontinuities, particularly when they pertain to core principles of time-reckoning and perception? If we accept these as legitimate questions, then it is compelling to suggest, as have others (e.g. Alberti and Bray 2009; Brown and Walker 2008; De Castro 2004; Gonzalez-Ruibal *et al.* 2011; Holbraad 2009; Meskell 2004; Zedeño 2009), that we try to discern points at which our archaeological thinking and practice intersect with indigenous ontologies of time.

Archaeologists who examine humans, animals, plants, and things from the past are faced with the choice of being the sole agents in constructing ideas about those pasts or *selecting to make comparisons that account for the ontologies that incorporated the agency of those things of the past*. Gonzalez-Ruibal and his colleagues warn that this is a journey that takes us deeper than meaning or symbolization. If we are to open ourselves – embracing the vulnerability that the exercise requires – to understand being in this other world, then we must travel into realms that are less obvious to the human actor. We must move to “rethinking and evaluating critically the vocabulary common in post-processual archaeology and material culture studies that includes terms such as ‘strategy’, ‘negotiation’, and ‘manipulation’, which inevitably implies a conscious human actor and a rather passive material world” (Gonzalez-Ruibal *et al.* 2011: 2).

Archaeology and additional ethnographic knowledge

In the remainder of this chapter, I want to explore how we may transform our practice to explore alternative ontologies of time and isolate points of intersection that illustrate the structuring of material remains that we expose and give value to. When I first came to Katuruka village in late 1969, I collected multiple accounts of Cwezi oral traditions: local clan histories and the history of King Rugomora’s kingship as well as his relationship to Kaiija shrine. My studies included archaeological inquiries in 1970 and ancillary investigations in 1979 and 1980. These later studies provided additional insights

into King Rugomora but not any mention about his association with serpents at Katuruka. His association with the ancient story of the iron tower was in turn linked to extensive metaphors and metonymies about human reproduction attached to landscape features. This reproductive symbolism derives from iron smelting, a socially constructed technology in which the furnace was considered a womb and the raw iron products as fetuses (Schmidt 1997, 2009b) – an ontology that humanizes the technological world. King Rugomora's identification with this powerful reproductive armature was cemented in place by incorporating Kaiija shrine *inside* his palace grounds as well as his alliance with the ancient Bayango clan, diviners linked to iron production, fertility, and rituals of renewal (New Moon ceremonies), nature spirits (leopards, snakes), and ancestral spirits.

The archaeology and ethnography of Kaiija shrine and the king's surrounding burial estate has been reviewed and re-examined several times over the years (Schmidt 1978, 1997, 2006, 2013) along with another sacred area 40 metres east of Kaiija tree – a circle of thorn trees (Figure 4.3). The circle of *mlinzi* trees, an *Erythrina* species, is closely linked to *kubandwa* and marks a place of spirit possession.⁸Excavations there in 1970 revealed important key finds, several of which pose interpretative challenges. The least ambiguous and most important was a partial jawbone found in a small pit, located amongst other larger and less comprehensible pits; the latter had highly stratified remains that appear to have been carefully crafted offering locales with animal bones in two pits, layered in a purposeful manner (Schmidt 1978, 1996). The human jawbone is very significant; it symbolizes royal power and its possession by an heir often assured succession to the throne in some parts of the larger region. Such ritual practices were closely associated with kingly possession of serpents, namely:

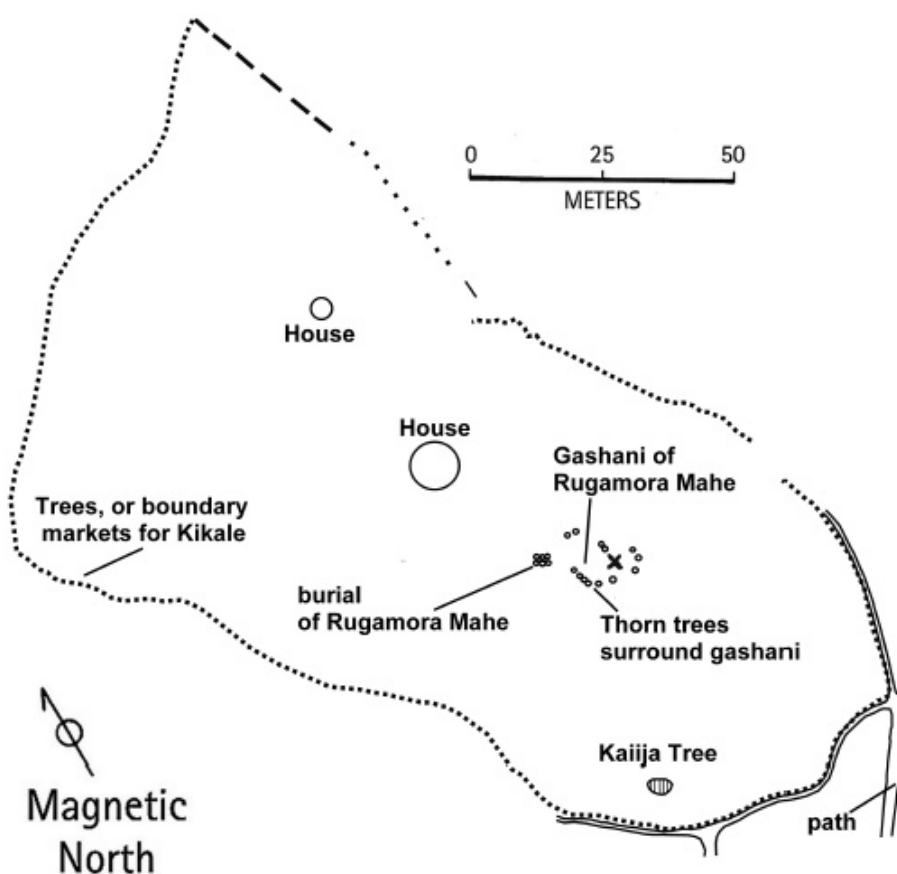


Figure 4.3 The central palace and now burial estate (*gashani*) of King Rugomora Mahe, who initially occupied the shrine during the mid-17th century

When a king died, his body was placed in a boat and left to rot until the jawbone could be removed by the Bashote clan. The body and boat were then left, eventually to be covered by an ant hill. Once the lower jawbone had been removed, maggots were taken from it and placed in a milk pot. After some time, a black snake with a white neck ring comes out of the pot and it is praised as the Mukama.⁹ The *embandwa* of the Mukama keeps the snake in the *gashani*, and the jawbone is buried in the *gashani* house.

(Schmidt 1978: 82, quoting Ikembwire Rwakairo of Bugandika, Kiziba)

These rituals were performed where the *Buchwankwanzi* (ritual regalia and divination house) of King Rugomora Mahe was once located on his burial estate. The *Buchwankwanzi* was where divination ceremonies were held, counsellors consulted, and royal ritual paraphernalia stored after a king's death. It was also a sacred precinct reserved for New Moon ceremonies and for

offerings to the ancestors who would have taken the form of leopards or snakes. Other finds such as a large hammer (linked to political power), a spear, and cowry shells all affirm curation of important ritual items at this locale.

An ontological journey into time

Decoding some of the structures associated with the thorn-tree circle was made more difficult by hostile Christian attitudes toward Haya ontology, including satanic characterizations. Even so, potent clues remain from pre-Christian times making it possible to isolate key concepts in Haya worldview that structured the past. The first clue arises out of the legend of Rugomora Mahe, a history that emphasizes his long absence from the kingdom before his investiture, the chaos that enveloped his domain in his absence, and his triumphal return marked by his erasure of famine gripping the land. This history of disruption and chaos appears as a common theme in neighbouring cultures during periods of succession.

One avenue to further insights into Haya ontology and its structuring qualities is to examine what happens during succession, both in Buhaya and neighbouring, related cultures. Bashu (eastern Democratic Republic of Congo) ritual and concepts of time may shed light on Haya ontology of time as derived from the history of King Rugomora and other cultural practices.¹⁰ Rituals of accession and investiture among the Bashu bear affinities to a Haya ritual cycle during the time of transition and transformation between political rulers as well as during New Moon ceremonies, a ritual process that mimics an interregnum and amplifies continuity during change.

Accession rites reaffirm the ritual power of the office, renew the land, and assert control over the bush. On the opposite side, death rites affirm the collapse of ritual power and open the land to the forces of the bush. Ritual inversion during the interregnum ensures chaos, *when death and burial reverse temporal movement* (Packard 1981). This is a time when ritual control over land was decentralized, when farms went untended and returned to weeds, when the forces of the bush threatened society. Chaos reverses the flow of ecological time and may be accompanied by political conflict as various factions vie for power. The chaotic interregnum is symbolically reinforced by its association with the dark lunar cycle between the last quarter (waning) and the New Moon, a time of darkness and sorcery.

The key to understanding time reversal is the role of the *mombo*, a pre-pubescent female ritual figure who played a key role in accession of a new ruler: *she assures the rebirth of the office when the new chief sits upon her lap and is designated successor*. As a liminal woman, she is also associated with

the dangerous forces of the bush and the decline of the office during the period of chaos. Once the *mombo* invests the new chief, then there is a return to plenty and the flow of ecological time is renewed (Packard 1981). In his exegesis of this rite, Packard points to the Gogo (central Tanzania) and their notion that adverse ecological conditions result from a reversal of ecological time. To ameliorate this condition they must re-reverse time, which they do by reversing ritual roles; women take the place of men, paralleling *the female mombo who renews chiefship by re-reversing (ecological) time*, initially reversed by the ritual codes following the chief's death. To reprise, the chief sits on the lap of the pre-pubescent female ritual official thereby re-reversing the flow of ecological time and erasing the chaotic forces during the interregnum. In this moment of poignant contiguity between the forces of chaos and those of peace, time is unattached to events or forces of causality. The assertive male role and the submissive female role in this ritual re-reversing time is key to our exegesis of Haya ontology and a deeper understanding of how it impinges upon time.

Steven Feierman calls this ritualized time *rhythmed time*, a concept he derives from Shambaai ritual practice in the Usambara Mountains of north-eastern Tanzania (Feierman 1990). *Rhythmed time* is often linked to periods of disorder, change and social realignment: it conveys an aura of inevitability and constancy, but it also incorporates disorder and change, characteristics particularly prone to leaving distinctive archaeological signatures. Structured disorder during rites of succession is a configuration that Feierman sees when the rituals surrounding the death of the king and the installation of the new king occur. From the moment that the drum beat to announce the death of one king and then the accession of the new king, a period of structured disorder and death came (Feierman 1990), manifest when ritual killings occurred on the paths leading to the capital.

Rites of accession were tied to the phases of the moon, a process that imposed a 'constructed' rhythm on royal reigns – both those of long duration *as well as* short duration. The result of such *rhythmed time* is the appearance of equivalency, the illusion of regular duration among royal reigns, which Feierman argues, conveys "a sense of inevitable recurrence" (Ibid.). The period after the death of the king until the installation of the new king was a time when capitals were relocated, when sacred sites were altered by ground disturbing ritual activities, and when there was significant rearrangement of ritual offices. In sum, succession disputes introduce periods of unpredictability, famine, and dislocation. These periods of political and ecological chaos were accompanied by ritual activities that repeat ancient patterns and revisit traditional sites. Given that *rhythmed time* occurred during periods of intensified rites that incorporate repeated rituals at 'burial' sites and sacrifices,

they may be readable in the archaeological record (Schmidt 1996). Despite possible material expressions, a more difficult problem is our lack of experience in Western archaeology with ontologies that incorporate the reversal and re-reversal of time. Can we make sense of them? The answer is yes, within specific ritual contexts. At the thorn-tree circle in King Rugomora's burial estate there is evidence for the reversal of time at his death, and beneath Kaiija shrine tree there is evidence for the re-reversal of time when he was invested. According to Haya oral traditions, the period before King Rugomora's investiture was one of unpredictability, widespread famine, and dislocation – the reversal of time that occurred upon his grandfather's death.

Hinda occupation of the Kaiija shrine and appropriation of its reproductive symbols marks the dynasty's successful struggle for legitimacy. We see the collapse of linear time in the archaeology of ritual events that transformed the site into a Hinda domain: by creating new spatial relationships based on *contiguity* between ancient places and the Hinda presence, temporal differences were erased by privileging principles of contiguity and identity to create coeval relationships (Schmidt 2006). This construction of coevalness was linked to the regularity of rhythmic time – the appearance of a natural regularity of regime change. Ontologically, coevalness assures identity, regularity, *and* continuity – key ingredients to smooth succession and overcoming conditions of chaos and discontinuity. I will now illustrate these principles as they unfolded in ritual practice.

Ontological markers for time in the archaeological record

Contiguous to the late first millennium iron forge beneath Kaiija shrine there was a stepped pit, a later intrusive structure with inclusions of kaolin and a shelf suitable for sitting (Schmidt 1978) (Figure 4.4). In some Haya kingdoms, the candidate-king was bathed in white salt and made to sit in a dug *well* at his new capital site, like many other regional royal practices that painted the king with white kaolin and partially buried him while sitting in a ritual pit. These were rituals of purification and renewal that assured the return of plenty and the cessation of ecological chaos that often marked the interregnum – as it did with King Rugomora Mahe.

As earlier noted, the era prior to Rugomora's reign was famous for its widespread poverty, famine, and general ecological chaos when the Hinda failed to invest a legitimate king. Rugomora's return from exile and his investiture stopped this infamous period of tumult and starvation. The "burial" ritual at Kaiija shrine during installation specifically marked this important

A review of Hinda ritual activities at Kaiija shrine show that the Hinda rulers situated themselves *inside* the domain of ancient myth and ritual (Schmidt 2006) by creating a new syntax of Cwezi myth and dynastic history in which the past and present were woven together, suspending linear time. The second step in suspending linear time occurred when Hinda ritual agency focused rites within a setting of great antiquity – Kaiija shrine – creating through ritual contiguity an identity, what we might also term a timeless continuity. These associations arose through purposeful ritual placement of the king's installation pit next to the ancient, sacred forge, a re-reversal of ecological time set in train with the previous king's death.

These examples illustrate that it is possible to fit Haya ontology to archaeological phenomena and thereby make better sense of how time is treated in Haya worldview. Rhythmed time – an improvisational measure that can be anticipated but not predicted – punctuates daily lives and concentrates change in moments when time is reversed (Schmidt 1996). It is during this period that leaders die, groups rearrange power relationships, resources are reapportioned, and new leaders installed, re-reversing time. Rituals that regulate and legitimate such changes *created the appearance of regular duration as well as natural continuity*. These rituals were acted out and physically expressed on the landscape in places that were commemorated, venerated, and preserved over the centuries. With work and thought-experiments (see Holbraad 2009), Western archaeology may have the potential to develop a language that incorporates their configurations and meaning.

The king sits in the lap of a virgin

Our exegesis is not complete until we account for other ritual processes that follow and amplify the re-reversal of time. During my first year of fieldwork, I was told that there was once a “caretaker” where Kaiija shrine tree was located, and that this person had abandoned the site in the early 1960s. I repeatedly asked, but I failed to obtain specific answers about where the alleged caretaker had relocated, beyond the vague mentions of “to the west”. None of our collaborators mentioned snakes or provided any additional information, even upon repeated visits to the site over a 15-year period.

I returned in 2009 for a long-term engagement with village elders and others who felt passionately about preserving their history and heritage places (Schmidt 2010, 2014, 2017). No longer were old men the keepers of oral tradition. A large proportion of elders died during the HIV/AIDS pandemic that took a cruel toll on this and other nearby villages (Ndamugoba *et al.* 2000;

Rugalema 1999; Schmidt 2010, 2017). A local committee initiated its own research project with many women designated as knowledgeable history keepers. Several months into the village research, we learned from these women, and then several men, that the “caretaker” was an important ritual official in charge of the burial estate of King Rugomora.

Histories held by women in this region have rarely been recorded or written about.¹¹ They remain submerged, truly subaltern. The research conducted by villagers helped bring to the surface vitally important subaltern accounts that compel us to rethink the ancient history of Kaiija shrine and King Rugomora’s burial estate. Our rethinking includes an examination of Haya ontology, particularly the role of spirit snakes and leopards in structuring ritual life and the materiality in the burial estate of King Rugomora Mahe. The central figure in these accounts is Njeru, a powerful female ritual figure who bears strong affinities to the female Bashu ritual virgin who re-reversed time.

Njeru’s ritual office featured marriage as a young virgin of 12 years to King Rugomora whose spirit lives in a snake, the snake that emerged as King Rugomora after his death and at the time of the burial of his jawbone in the Buchwankwanzi house. Njeru’s snake was deeply enmeshed in the New Moon rituals of renewal, during the chaotic darkness of the New Moon and the vitality of memories about King Rugomora’s place in Haya heritage. These accounts revise our understanding of how this ancient shrine site functioned to transform and re-order time.

The emergence of Njeru

As local inquiries continued into 2010, it became apparent that elderly women commanded an intimate knowledge of social interactions in the community and held clear historical reminiscences about their neighbours and kin. Now elevated to history keepers, several elderly women identified a woman named Njeru who lived in the former royal palace of King Rugomora, now his burial estate where Kaiija shrine and the circle of thorn trees are located. Njeru lived there between 1900 and perhaps several years short of 1963, when kings and chiefs were abolished by the Tanzanian state. She maintained the burial estate of King Rugomora, cared for the regalia of the king, and conducted monthly New Moon ceremonies – ritual of renewal – in the shadow of Kaiija shrine on behalf of the ancient kingdom over which King Rugomora once ruled.

Njeru was married in 1900 to King Rugomora (died c. 1675), was given the same respect as a king, received tribute in beer and other goods, and deeply influenced the welfare and well-being of her neighbors who widely respected her and admired her. *Appearing as a snake slithering*

onto Njeru's lap, King Rugomora took on a living dimension when these women related Njeru's history. Our awareness of Njeru and her potential importance to Haya ontology and time first developed from interviews with Ma Eudes Bambanza, the granddaughter and daughter of the powerful overseers of the large burial estate and charged with protecting Njeru while living close to the palace. She recounted, "... the [sitting] Mukama [King] feared her; if she became angry, it was she who imposed her will on the Mukama, and the Mukama would pay two heads of cattle. Or he would ask her forgiveness, whereby she forgave and forgot his offence. Nor could the Mukama pass through or enter into her area" (Ma Eudes Bambanza, April 9, 2010). The sitting king could not challenge her decisions nor set eyes upon her, let alone pass through her estate. For all intents, she was free of his direct authority and could demand recompense should he be so bold as to offend the wife of King Rugomora. Ma Eudes, when talking about the royal Hinda clan, added poignant detail that unveils Haya ontology regarding spirit snakes (Schmidt 2017): As far as I know the snake ... used to come to Njeru and *coil three times on her thighs. That snake used to drink milk*. It did not stay long, it went back to its house. There was also another house near there, they have even excavated there, in that house offerings were made [under Kaiija tree]. We now don't reach the place, but there was the house of Rugomora the Great [the nyaruju palace house of Njeru]. It was there that he came out as the snake which married the woman.

(Ma Eudes, November 26, 2009; emphasis mine)

Her account complements that of Ma Zuriat Mohammed, also descended from a family invested with oversight of the burial estates and its affairs, domestic and ritual (Ibid.):

A few days before New Moon we would be told that the Mukama was about to appear. Then my father and his brother went to work; we too went to perform other duties, that is, they prepared liquor to welcome the Mukama. *The ancient Mukama was represented by Njeru who was regarded as his wife. On such occasions she was regarded as a newlywed bride*. That is what it meant, the appearance of the Mukama. I am explaining what I witnessed. I saw Mukama Njoka (snake). The day the Mukama appeared, we made a great celebration; we ate and drank... . I worked there following instructions given to those who came to work under my supervision of six years.

(Ma Zuriat Mohammed, December 1, 2009; emphasis mine)

Ma Zuriat held clear memories of Njeru' appearance during New Moon ceremonies (Ibid.):

How can you explain a marriage between a snake and a human being? But at the time when the snake was about to appear, Njeru was smeared with fat. People like my father would not sleep on their beds. If I am pulling your leg, go and ask another person. On that day, there was plenty of beer for your fathers and grandfathers. It was a feast. It was the arrival of the king. Njeru was as quiet and collected as a new bride on wedding day. The fat was dripping from her face. Then the snake came and rolled itself and coiled on her naked body.

Being smeared with fat signifies prosperity and is also a trope for marriage – a potent metaphor during a renewal ritual. As a Mukama, Njeru was obligated to redistribute tribute that she received from her clients living on the estate and elsewhere in the immediate area. She held large and well-known New Moon ceremonies, often punctuated by a royal band playing trumpets and drums, ritual activities that occurred during visitations from King Rugomora as a snake during the New Moon.

Final reflections on ontology

The testimonies that bring Njeru to life help to amplify key points of intersection among Haya ontology, Kaiija shrine, and King Rugomora's Buchwankwanzi. Ma Zuriat's memory of a small shrine house beneath Kaiija tree fits the archaeological record, as there is a high frequency of cowry shells limited to a small area just to the north of Kaiija tree. These appear to be ritual offerings but placed specifically in a small shrine used by Njeru and her predecessors during New Moon ceremonies. Most importantly, the practice of the New Moon rituals by Njeru were *within the same space as the installation rites* for King Rugomora, thus amplifying the original rites, further ensuring the prosperity of the kingdom, and affirming the re-reversal of time in which chaos prevailed.

Once we understand and then embrace Haya ontology, manifest here as spirit snakes at Kaiija and Kya Rugomora shrines, then we may follow additional clues about reproductive time and the denial of chaos that emerge vis-à-vis Njeru's reproductive cycle determining the timing of her relationship with King Rugomora Mahe. Local taboos prescribed that Njeru had to go into isolation during menstruation. Her menstrual hut was not located in the centre of the palace compound, as would have been common for royal wives in the past. Instead, it was in a homestead outside the central ritual precinct about

120 metres to the west – a distant location that affirms her special status and the spatial expressions of her ritual time.

From the perspective of local discussions about her menstrual period, she was preparing herself for a union, readying herself for reproductive activity (Schmidt 2017):

When she got into her periods, according to what we were told, she left her house. She went into [her menstrual house at Zakayo's farm]. As soon as [her period] stopped, she would sit, legs stretched out, and it would come onto her thighs, that is, her husband slept with her.

(Leveriani Bambanza, May 1, 2010)

As the wife of Rugomora Mahe, Njeru's relationship with the King required her to keep, feed, care for, and mate with the snake. The snake's curling on her lap parallels the Bashu king sitting on the lap of the ritual virgin, re-reversing time. Each New Moon ceremony marked a renewal of the kingdom against forces of chaos, a re-reversal of time that occurred when the past (Rugomora's spirit) was ritually contiguous to the present (Njeru's lap), making time coeval and erasing linear causality. We see this played out in the spatial arrangement of structures and artefacts, both at Kaiija shrine and at the thorn-tree circle.

If we follow the proscriptions of Stump and other Western academics of similar persuasion and discard valuable empirical information that disagrees with academic canons, then we will fail to understand how time is conceived and acted out in other ontologies. First, however, we must learn how to listen to others, to set aside our preconceptions and cultural biases. Once we begin to listen without privileging Western modes of thought, with minds open to other worldviews, then we position ourselves to understand better other realities. These realities demand a different kind of discipline – one in which we apprentice ourselves in the painstaking task of relearning how the past is constructed and how time is conceptualized in other ontologies. This also asks that we make our practice of archaeology vulnerable to new ways of seeing and believing. We are at a critical stage in the development of archaeology in which colonial proscriptions must be cast aside as we seek to understand the cultures we study. If we privilege only Western norms of evidence, then we will surely fail in our mission to practice an anthropological archaeology.

Notes

¹"Negotiation" in this instance may involve competing claims: indigenous constructions, interpretations proffered by Western scholars, and the process of tacking between the sources (Wylie 1995). My use refers to Wylie's concept of tacking as a form of back- and-forth that one finds in negotiation.

- 2The Cwezi, an abbreviation of Bacwezi, are known as an ancient religious movement referenced in many oral traditions as a ruling dynasty before the mid-second millennium. The Cwezi are manifest through possession of spirit mediums throughout Bunyoro, Ankole and Toro (all in Uganda) as well as Buhaya. Many local clans have a Mucwezi (sing.) spirit and spirit mediums, arranged in hierarchies of spirits including lesser local Cwezi.
- 3The Hinda are post-Cwezi rulers in several kingdoms in Tanzania; they are associated with pastoralism and trace their origins to western Uganda.
- 4Wamara was the last and most powerful of the Cwezi kings and the most significant spirit in the Cwezi pantheon and in Haya *kubandwa* practice.
- 5This term for nature spirits is no longer used by the Haya, but its once wide currency around Lake Victoria strongly suggests that it was also common to the Haya. See Schoenbrun 1998 for pertinent linguistic analyses.
- 6Some *bazimu* spirits are considered malicious (Tantala 1989), yet there is also a more benign group into which the *muzimu* of Rugomora Mahe apparently fits.
- 7In intensely domesticated spaces such as Buhaya, we may imagine that the python species--once present in Katuruka village--have disappeared over time to be replaced by more common proxies, such as other large constrictors.
- 8Tantala provides a very useful exegesis of this association (1989: 709 and 785: nt. 62).
- 9The colour and markings of the snake appear to vary from kingdom to kingdom, so this Kiziba case should not be thought to apply elsewhere for the type of snake.
- 10The Bashu reside in the Semliki River valley of eastern Zaire, several hundred kilometres to the north-west of the Haya.
- 11One significant exception is Larsson (1991), writing on the Christian education of women in Buhaya.

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5

Periodization in archaeology

Starting in the ground

Gavin Lucas

Prologue

Periodization is a fundamental operation in any historical discipline, archaeology included; indeed, one might even say that the birth of a scientific, prehistoric archaeology was concurrent with the birth of a new periodization: the Three Age System (Schnapp 1996; Trigger 2006). This speaks, not only to the importance of time in archaeology, but more specifically a certain temporal regime which periodization underwrites, one that is most visible in evolutionary narratives of history where periods are translated into stages (also see Corfield 2007; e.g. Lucas 2005). However my aim in this chapter is not to analyze this regime and its operation, but rather take it for granted for reasons I will, albeit briefly, return to at the end. Rather than criticize periodization as a paradigm of, say linear time, I want to explore the challenges we face if we accept that periodization – at some level – is necessary for archaeology. Ultimately my goal in this chapter is to attempt to steer a course through its very turbulent waters as a way of trying to strengthen but also qualify our use of it.

To that end, I am going to explore the problems of periodization through a story about dealing with the chronology of a site I am currently working on. Periodization is often something we think as inherited – we work within period boundaries already well established, whether you are working on the Iron Age or post-medieval periods. There is no doubting the power of these entrenched periodizations to channel our research – a point I also return to at the end of this chapter. But what we need to remember is they once did not exist, but had to be created. They are achievements. What I want to argue here is that rather than take such achievements for granted, we need to recreate them every time we work on our material. We should always strive to build them up from scratch, because only in this way will they be shown as useful or not. And so this is what I will attempt in this chapter: to construct a periodization from the bottom up, but taking in along the way the weight of tradition as I meet it. As I tell my story, I will face five challenges, each of which I try to battle as best I can. I am not sure I emerge victorious, but I like to think I have learned something along the way.

Challenge 1: phasing a site

As I write this chapter, I am in the midst of preparing a monograph on a large-scale excavation I directed in Iceland in the early 2000s; the excavation focused on the core of an elite settlement called Skálholt which was an episcopal

manor and school (e.g. Lucas 2010). Established probably in the 10th or 11th century ce, our excavations largely dealt with the last century of its life as an episcopal seat in the late 17th to late 18th centuries as well as its subsequent transformation into an ordinary farmstead in the 19th and early 20th centuries. Altogether, we looked at about 300 years of continuous activity and occupation. In writing the basic narrative of the site chronology, I faced a troubling dilemma. On the one hand, ever since I first started writing these kind of site narratives as an archaeologist I had adopted the standard model one can find in almost any site monograph: breaking the chronology down into discrete phases or periods. Sometimes these phases or periods even had sub-phases. Major periods or phases mark the most important changes, whereas less significant or more ambiguous changes will warrant sub-divisions within these broader periods.

Periodization is never arbitrary – not in the sense of being random; it always aspires to follow change (Baker 1997; but see Collingwood 1927). When scholars talk about the arbitrariness of periodization, what they usually mean is that it is something imposed by the scholar on the past or on the course of history, rather than something inherent in history itself. As Carlyle once put it in an essay on history: “Our clock strikes when there is a change from hour to hour; but no hammer in the Horologe of Time peals through the universe when there is a change from Era to Era” (Carlyle, quoted in Blackbourn 2012). Nonetheless, even if there is no Horologe of the Universe, historical events themselves can act as decisive markers – In Iceland this could be the arrival of the first settlers in the late 9th century, the legislative act adopting Christianity in 999/1000 ce or independence from Denmark in 1944. Certain events, whether acknowledged by participants at the time or only in hindsight by historians, act to demarcate one period from another.

The problem – and potential arbitrariness – lies of course, in choosing these events and whether we focus on one key vector of change or try and look for a whole series of synchronized, aggregated changes (Green 1992). And this brings me back to my dilemma. When I look at my site, even the three centuries we excavated, it was hard to see any obvious way of creating site-wide periods. Each building underwent its own rhythm of change, following repairs and alterations; sometimes they synchronized with other buildings, sometimes not (Figure 5.1).

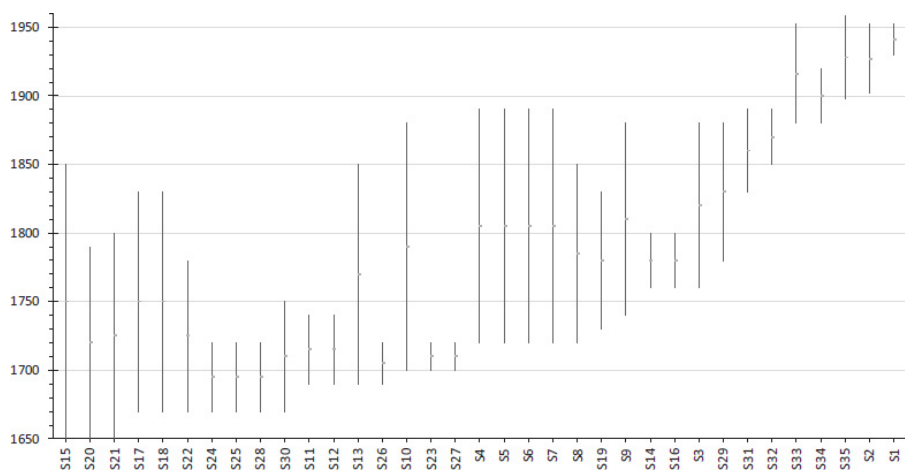


Figure 5.1 The major structures at Skálholt showing the duration of occupation/activity

Source: Author.

In short, the stratigraphic sequence of the site reflected exactly the kind of transformation you experience walking around any city or town today – piecemeal change, here and there, rather than any large-scale co-ordinated and synchronized transformation. How then, should I choose to phase my site? However I cut the cake, something would be mangled in the process.

My response has been to resist this urge to phase the site altogether. Not only is it hard to do, it simply does not capture the complexity and manner of change which all our hard work on careful, stratigraphic excavation, revealed (see Lucas 2001, for a similar point). This is not to suggest I have abandoned periodization altogether; quite the contrary, it is still applied to individual structures on the settlement. But that is also where it currently stops. A few years ago, I faced an even worse problem created by a lack of high-resolution dating. At a Viking feasting hall I excavated in the north of Iceland, we had a number of structures which each had their own internal phasing, but the problem I faced there was an inability to tie these individual structures together into a common chronology; despite a wealth of ^{14}C dates, the resolution needed to say when this building was constructed in relation to that building, was often lacking and at best, a rough relative sequence was sometimes afforded by what limited stratigraphy there was between the structures (Lucas 2009). At the same time, the solution I adopted there was somewhat unsatisfactory, one which suggested a more fluid overlapping chronology yet one which yielded to the ultimate adoption of a rigid periodization. I do not want to do this with Skálholt.

Challenge 2: material culture sequences

In making a decision to dispense with a site-wide periodization, I found I had however traded one problem for another. One of the benefits of using a site-wide periodization is that it enables us to conduct studies in change of material culture – how for example a pottery or faunal assemblage changes between periods I, II and III. This is why I ultimately fell back on this recourse with my Viking site discussed above. But if I abandon a site-wide phasing, how should I deal with the problem of tracking change in my artefactual or zooarchaeological assemblages? Initially with Skálholt, I did experiment with the idea of creating some complex algorithms which would enable me to transform my data into average blocks of time (30-year spans). However, in the end I chose to stick with a simpler solution and created arbitrary 30-year periods (starting from the earliest excavated, 1630) with which or multiples of which (i.e. 60- or 90-year periods) I sorted my 80 individual building phases into 32 phases. This produced some rather messy graphs, as many of my periods only fitted into multiples of 30-year blocks, and although sometimes patterns were still legible, cleaner versions were still possible if I just stuck with my minimum 30-year periods of which there were only 10. The downside to this is having to exclude a large part of my data. Nonetheless in doing this, one can start to identify major discontinuities in the material culture, which is ultimately the point. For example, taking a broad sweep of major ceramic groups shows a clear major change in the first quarter of the 19th century as industrial earthenwares increase at the expense of almost every other category (Figure 5.2).

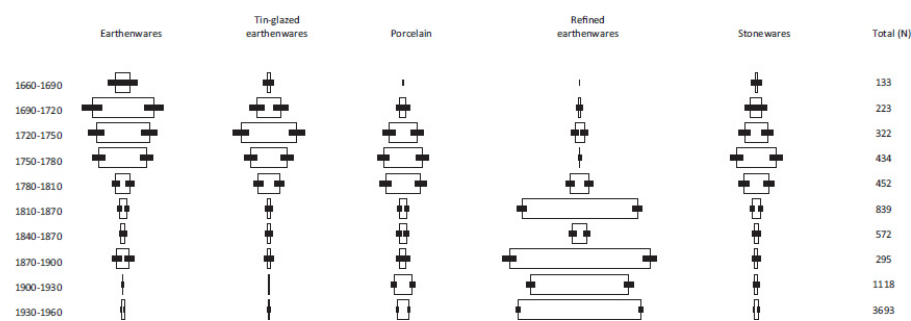


Figure 5.2 Seriation of major ceramic groups from Skálholt

Source: Author, using frequency seriation macro, developed by Hunt and Lipo (www.lipolab.org).

In doing this, I did in effect adopt a site-wide phasing but one not intrinsically tied to the structural or stratigraphic sequence, which is how such phasing is usually accomplished, but rather one simply tied to a calendrical

chronology. It at least had the merit of disconnecting material culture sequences from architectural sequences which may not synchronize; at the same time, I realize it was only possible because of the high-resolution dating afforded by the site. Such a solution would prove harder on other sites, though again, not necessarily impossible. However, while this got round my problem of needing a site phasing based on the structural or stratigraphic sequence, I was now faced with even more complexity. It is not as if it is bad enough that the different structures on my site changed at different rates and at different times, but the material culture sequences also had their own internal clocks which, like the buildings, sometimes synchronized but just as often did not. While ceramics might have displayed such a marked change in the early 19th century, a different periodization could be obtained if I used a different category, such as window glass (Figure 5.3).

Looking for example at the dominant shape of window panes/quarries, there is a clear move from diamond-shaped to square or rectangular panes in the late 17th and early 18th centuries. And the more materials I track, no doubt the more new temporal boundaries will emerge, like the heads of the mythical hydra. In other words, periodization was starting to seem more and more of an impossibility, the more lines of evidence and vectors of change I introduced. Or rather, *every item of material culture could carry its own periodization*. This was partly what I was after; but at the same time, in achieving this, it also made it harder to develop a coherent narrative which could draw all this stuff back together.

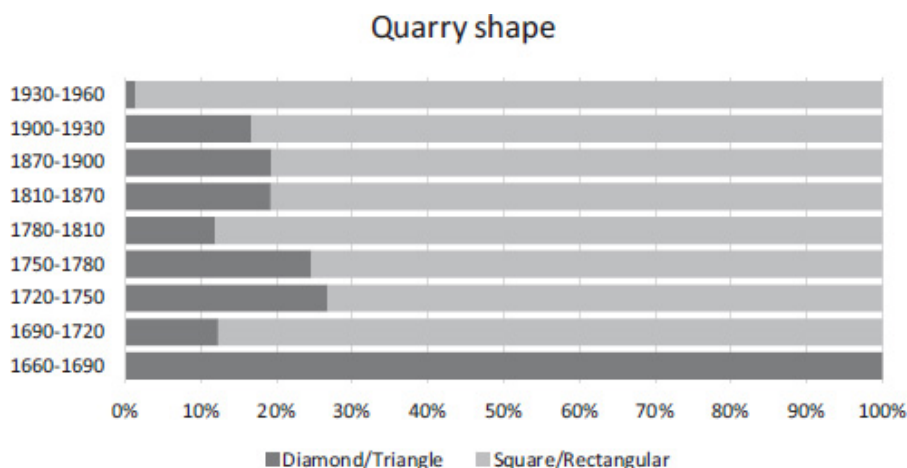


Figure 5.3 Ratio of diamond-shaped to square-shaped window panes from Skálholt over time

Source: Author.

A similar argument was recently made by Arnold in the context of Iron Age

archaeology where settlement and burial data can be used to construct very different periodizations (Arnold 2012). As Arnold succinctly puts it, periodizations are straitjackets, homogenizing variation. Now two periodizations juxtaposed might still yield some interesting challenges for a narrative which wants to talk about both of them in a coherent way; but if our material culture periodizations are multiplied endlessly, one quickly runs the risk of descending into chaos. So what was I to do? I could simply accept that multiple periodizations and the multiple narratives they imply is alright. Why do I need a master narrative, a master periodization anyway – didn't we dispense with such totalizing ambitions in the wake of postmodernism? Unfortunately it is not that simple. I am in fact, quite willing to embrace different periodizations as a general rule, but in telling a particular story – one where I want to connect up my ceramics and window glass, my building phases and faunal assemblages, I need to develop a common framework. I need what we might call a strategic or contingent periodization as opposed to an absolute one.

Challenge 3: history to the rescue?

One of the issues about periodization is that it is usually claimed to be the construct of the historian or archaeologist; even if it attempts to identify important changes which would have been acknowledged by people at the time, there remains the sense that it is an artificial cutting of time. R.G. Collingwood's discussion of periodization is interesting as it departs somewhat from the more usual idea of periodization marking change; for Collingwood, a period is defined not from its edges (the change between one era and the next) but from its epicentre, a 'luminous point' in the past like 5th-century Athens which shines out and defines a period (Collingwood 1927). The historian then, in proceeding to ask how this period began and how it ended, adds the edges afterward. Collingwood's discussion was in the context of a review of Spengler's theory of cycles of history and written to underline the arbitrariness of periodization and also show how most periodizations typically incorporate a tripartite structure which has a cyclical form, like the bell curve: the middle period being the floruit and high point of a period, headed and tailed by less notable times.

But not all tripartite periodizations have this structure. Some, and perhaps the most deeply embedded of all, implicate an inverted bell curve: an original age of glory, followed by long, dark middle ages which re-emerge into the light in its final stage. Severin Fowles has discussed this other periodic structure as a key trope in Western narratives, one informed by a religious or eschatological

cosmology (Fowles 2013). It certainly plays out in the larger scale narratives of Western historical periodization (ancient-medieval-modern) and is also very evident in Icelandic historical periodizations. I will return to these issues in later sections (especially their political dimension), but for now it reminds us that implicated in any periodization is a certain historical consciousness which usually involves a narrative, even teleological structure. Whether this historical consciousness is a peculiarly modern experience is debatable; even if our specific experience of time or regime of historicity is unique to us (e.g. Hartog 2015; Koselleck 2004), one should still acknowledge that other cultures and communities might have their own order of time which raises the question of whether we should be seeking to use that as the basis of our periodizations. This is a hard thing for archaeology to grapple with, but some have tried, such as Hodder's examination of material culture sequences as indicative of changing narrative genres, drawing on the work of Hayden White (e.g. Hodder 1993, 1995; White 1973). But it helps of course if you have some clues of how 'history' might have been perceived by the people you are studying.

Excavating at Skálholt, especially the remains from the last three centuries, had an added benefit of a rich documentary archive relating to the site. One of the issues we might consider here is the relation of periodicity to periodization; life at Skálholt, as anywhere, was partially bound to recurring temporal structures such as seasonal/annual cycles. The school year was a major one, with students coming to Skálholt from their home farms at the end of the summer and leaving again in late spring. Certainly events like repairs and maintenance to buildings or the influx of goods will be shaped by these seasonal cycles, but their very repetitive nature in a way is what ensures continuity. Since periodization is typically marked by discontinuity, it is to those periodicities that are not iterative that one needs to pay closer attention to.

The documentary record for Skálholt is rich not only because it related to a period where textual sources start to increase in volume and detail, but also because it was one of the most important settlements in the country, home to one of the two bishoprics in Iceland and a centre of administrative archive production itself. This archive arguably has its own periodization, one based on the periodic succession of bishops (Table 5.1).

Each time a new bishop was inaugurated, an inventory was made of the settlement which included a detailed survey of all property, moveable and fixed. This archive has in fact been invaluable for understanding the site, not least the functions of buildings, but more generally triangulating between archaeological, textual and graphic evidence has enabled us to build up a very rich and three-dimensional knowledge of the site. And yet, much of the inconsistencies between the archaeological and documentary sources stem

from the different temporalities at play; the historical archives depict the site at a moment in time while the archaeological sources aggregate multiple moments at a wider scale of resolution. Nonetheless, the two temporalities can be correlated, by and large because of the high-resolution dating afforded by a rich and closely dateable material culture (e.g. clay pipes, coins, ceramics) and stratigraphically excavated site.

Bíshop	
1639-1674	Sveinsson
1674-1697	Jáksson
1697-1710	Vidalín
1710-1722	Arnason
1722-1754	Ólafur Jónsson
1754-1785	Finnur Jónsson
1785-1796	Hannes Píonson

Table 5.1 The episcopal succession at Skálholt

Source: Author.

As such, I have considered using the historical periodization as a possible way out of my impasse and to bring coherence to the potential chaos of a multitude of periodizations inherent in material culture change. The change of a bishop would have certainly been a significant event in the context of this settlement and if these changes can be more or less matched archaeologically, then why not? After all, this is how the people at the time might have perceived major changes at the site and indeed, since the bishops generally were the ones to make any major decisions affecting structural repairs or rebuilding work, their agency could be considered paramount. Well, this is where politics comes into the frame. *Which people* and *which events* are we talking about? To adopt an episcopal periodization is to privilege a periodization based on individual elite males. The question of politics, especially gender politics and periodization has received some attention by scholars and its presence can no longer be ignored in my discussion. Morgan’s critique of how periodization in North American history sits uneasily with studies of slavery is one recent if specific example (Morgan 2016), while Maynes and Watner’s more general critique of prehistoric periodizations shows how they are structured on androcentric concerns such as technology (e.g. Three Age System) as well as Eurocentric narratives (Maynes and Watner 2012; on eurocentrism and periodization, also see Orser 2013).

These studies offer important reminders that even something as apparently mundane as periodization always entails a political dimension, which is a feature that will now recur with increasing intensity in the rest of my discussion. But in returning to Skálholt, it is quite clear that simply adopting

an episcopal periodization entrains a whole new set of selections and silences than those relying solely on archaeological data. I could turn to the historical archive for other, subaltern subjects and use them to create an alternative periodization, but none of this removes the underlying problem. Rather than offering a solution, it has only made my quandary even more difficult.

Challenge 4: beyond the site

We seem to have arrived at a point now where any further progress seems impossible; the sheer diversity of objects, people, events which all have their own rates of change, their own temporal rhythms, makes our head spin. And to cap it all, none of these are politically neutral so whatever elements we do choose to focus on, not only are we diminishing the significance of other elements, we are also – implicitly or explicitly – promoting a politics of the past. And yet I think there may still be hope for me in this thicket of time. If politics is about anything, it is about the differential distribution of power; knowledge is arguably no different in shape – it is (partially) about the differential distribution of relevance or significance in connection to information or facts. Not all changes, not all objects are as important as others. So long as we keep in mind that defining relevance is simultaneously political and epistemological, then we have a basis on which to start building a periodization.

What this means for my periodization at Skálholt is that I should not be trying to offer a periodization of Skálholt without a consideration of the broader context. How can I possibly define what counts as relevant change at Skálholt by just focusing on Skálholt in isolation? I need to see how it intersects with regional periodizations, in this case periodizations of Icelandic and generally north European archaeology and history. Icelandic archaeology has traditionally followed a, largely implicit, tripartite periodization: the Settlement Period (*landnámsöld*, 870–930 ce); the Free State or Commonwealth period (*þjóðveldisöld/goðaveldisöld*, 930–1262 ce); and later periods (*seinni alder*, 1262–present) (Vésteinsson 2015). The focus on divisions in the earlier centuries reflects an entrenched, nationalist ideology which glorifies the first centuries when Iceland was an independent country before it came under the kingdom of Norway-Denmark in 1262 and remained as such until 1944. The lumping together of most of what we would call the mediaeval and post-medieval periods reflected a sense of a long dark age where nothing really changed. This was especially true of archaeology but also to a large extent, history in Iceland as well until recently (e.g. Lucas 2012a).

My attempts to try and create a periodization for the 300 years I excavated

at Skálholt on this conventional framework, then appears rather pointless as all three centuries (and more besides) fall clearly within this third, later period. Indeed, my latest deposits (excluding later archaeological activity), date to 1958, just 14 years after independence. This is actually no coincidence; the site was intentionally levelled at the time as part of major rebuilding of Skálholt, including the erection of a new church and the re-establishment of a vice bishopric. The 1950s developments were part of a concerted attempt to revive Skálholt as a centre of Icelandic culture and Christianity and can be clearly seen as part of the narrative of a newly independent nation to revive its past (Víkingur 1958).

Is this a periodization I want to adopt, however? One largely governed by nationalist sentiments? Vésteinsson has recently offered an alternative periodization for Iceland, one based mostly on the archaeological record and changes perceived therein (Vésteinsson 2015). Looking at changes in the material culture and architecture as evidenced by our current state of knowledge, Vésteinsson argues for two major thresholds occurring c. 1300 and again c. 1600 (and has subsequently added a third, c. 1800; Vésteinsson, pers. comm.). Vésteinsson is fully aware of the problems surrounding any attempts to define major periods of transition, as he is of the current limitations of archaeological knowledge in Iceland (not least the paucity of data for the 13th to 17th centuries), so his paper is more of a provisional sketch. Nonetheless it now places our Skálholt data in a slightly more respectable position, essentially encompassing his final period (c. 1600–present). At the same time, it also suggests I still don't have a periodization worth thinking about, for the same reason: I just have one period.

Whether this should bother me or not in some ways is beside the point; more important is whether I should adopt it or not. One of the big problems arguably is that I am working within a fairly confined and short duration of time (three centuries), which starts to become too narrow when relating the Skálholt periodization to larger scales. When looking at the larger picture, my short chronology is simply never going to capture larger scale processes and patterns which are enacted over a longer stretch of time. Since I cannot really use my Skálholt data itself as a means to contest this new periodization as the whole point of finding a suitable periodization is dependent on situating Skálholt in its wider context, my only other option is to shift the scale outward one more time and reflect on these larger scale processes. How does Vésteinsson's periodization sit with current thinking on periodization for north-western Europe over this time?

Challenge 5: on global periodizations

One of the apparent advantages of shifting from the regional to the global – or at least inter-regional perspective, is that we can also escape the nationalist ideologies which might affix to a periodization focused on a single country like Iceland. However, this only substitutes one political ideology with another. Colonialism has often been acknowledged as the flip side of nationalism, or rather vice versa (Chatterjee 1993), and it is thus no surprise to find that when we start to think about more global periodizations, we enter the political minefield of eurocentrism. There are many ways this manifests itself – in prehistory, the work of Maynes and Watner has already been mentioned, but more generally, the very divide between prehistory and history is caught up in a Eurocentric narrative which has especially infected archaeologies of former colonial contexts (Funari *et al.* 1999; Lightfoot 1995; Matthews 2007; Orser 2013). Johannes Fabian raised a similar critique in his study of anthropology and time, where the temporality of the anthropologist and his/her subject becomes fractured so they are no longer considered coeval (Fabian 1983). In other words, there is no shortage of commentaries on the dangers of a global periodization, especially when expressed from within the European tradition.

But how might this play out in the context of European archaeology or history, in a place like Iceland? We are not really dealing with a colonial context, at least not in a conventional sense (but see Lucas and Parigoris (2012) on this issue). In many ways this is irrelevant since the concepts of nationalism and colonialism are closely bound to that of modernity, and modernity is one that occupies a central role in periodization of European history, specifically in the classic tripartite schema of ancient, mediaeval and modern (Green 1992; Le Goff 2015). The problematic term among these three, as many scholars have noted, is that of modernity (see especially Corfield 2007; Jordheim 2012; Osborne 2010). I should not need to revisit these arguments here, suffice to say that there is a very loaded set of connotations and associations which positively value modernity and – by implication if not in word – denigrate that which is non-modern. It is this negative space that connects the Middle Ages, the Colonial Other, and Prehistory as non-moderns. Rather than re-tread this well-worn path, I want to consider some of the revisionist periodizations of European history that have emerged in its wake – or rather, alongside it. Specifically, periodizations which challenge the conventional division of the mediaeval and modern at c. 1500.

The earliest of these were offered in the 1950s. One came from the German historian Dietrich Gerhard who argued that the traditional boundary of mediaeval/modern, typically placed around the 16th century, did not bear sustained scrutiny (Gerhard 1956). Changes may well have happened around this time – the usual time-shattering suspects including the religious Reformation, European global exploration but most particularly Renaissance

art and thought. But none of these mark a real radical change for Gerhard, who would mark the major thresholds or transitions of European history in the 11th and 18th centuries, respectively. A similar shift was argued by the English historian Geoffrey Barraclough, who however moved the earlier date from Gerhard's 1000 to 1300 (Barraclough 1955). Green took up their periodizations in the 1990s, and adopted a more flexible boundary, at least for the earlier period, suggesting major changes occurred between the 9th and 11th centuries (Green 1992: 39). The same revisionist periodization has most recently been given by Jacques Le Goff in his last book, where he re-affirms what he calls the long Middle Ages, running from the 12th to the 18th centuries (Le Goff 2005, 2015).

All of these scholars vary in the depth at which they argue for their new periodizations, but none necessarily link the changes to any underlying dynamic set of forces, characteristic for example of Marxist approaches (which usually retain the emphasis on the 1500s as the pivot, Green 1992; also see Grinin 2007). Nonetheless, they do offer the basis for a critique of the typical mediaeval/modern divide, a critique to which some archaeologists have also added their voice (e.g. Courtney 1997; Fagerland and Paasche 2011). What is also perhaps interesting in all these revisions is that while the earlier boundary shifts, the later one remains consistent among all of them at the 18th century. It is interesting because it falls right in the middle of my 300 years at Skálholt. Finally a periodization that might have some purchase for me. But what might it mean?

In some ways, I can make this 18th-century pivot look very appealing. Going back to my initial phasing of the architecture, one thing that is undeniable is that between 1780 and 1810, the settlement does undergo a rather major modification: many of the buildings are abandoned and are used in the final phase as rubbish dumps, while the site shrinks quite dramatically. There is also a similar major transition in the ceramic record, as discussed in my second challenge; the rise of industrial earthenwares clearly takes off after 1810, eclipsing all other ceramic groups (see [Figure 5.2](#)), which though later than some other places, is nonetheless a widely attested phenomenon in the North Atlantic world. And my lucky streak does not stop there. Challenge 3 and the historical archive quite clearly demonstrates that in 1785, the episcopal function of the settlement stopped completely as the bishop and school moved to the newly chartered town of Reykjavík, and although the last incumbent bishop lived out his remaining days in retirement at Skálholt, by the early 19th century the site had become a typical farm.

Ok, that is all way too neat. Maybe. Not only that, but have we really got rid of the spectre of modernity? The industrial revolution and the birth of a consumer society, the French revolution and nation-building – these are some

of the characteristic hallmarks of the 18th century and although they have often been used to demarcate an internal division within modernity (early and late), now they just occupy a much more central role. We could at least choose to avoid the terms *mediaeval* for the period prior to the 18th century and *modernity* for after it, but will that really excise the spirit of modernity and all that entails? Possibly not, but in some ways modernity is not the problem, especially if we relinquish any close association between it and periodization. I think what is interesting – and what I have ultimately tried to demonstrate here – is the importance of linking change at multiple scales, and when synchronicity happens – maybe, just maybe, it is telling us something important about the relevance of change at these moments. Jacques le Goff rightly stresses that periodization is fundamentally a means to mark change but he also argues that real change, significant change is much rarer than we care to admit (Le Goff 2015). I cannot help but agree.

Epilogue

So where does this story leave us when it comes to the question of periodization and archaeology? Throughout, there has certainly been the presumption that writing history or archaeology, entails writing a linear narrative or at least a reliance on a linear temporality – if by that, we mean a temporality which is largely directional, albeit in a non-teleological manner. Such an assumption obviously does not even acknowledge the possibility of non-linear archaeologies, such as those argued by Olivier (2011), Witmore (2006, 2013) and Bailey (this volume) and the potential rejection of periodization tout court (e.g. Wesling 1997). And this is inevitable. Periodization is ineluctably bound up with a certain temporal regime, and to even talk about non-linear periodization is an oxymoron. However, none of this is to suggest a disregard for non-linear archaeologies; I have even tried to argue elsewhere that in a sense, we need both (Lucas 2015). But I have deliberately avoided discussion of these issues, simply because I believe periodization still has a function in archaeology, and therefore by association, so does a linear temporality. My main focus has been on how we might think more critically about periodization within the confines of the temporal register that it perforce, operates.

As such, let me re-iterate a few key points:

- Periodization is fundamentally a means to *mark change*.
- *Change happens all the time*: it is constant and occurs at different rates because of the different temporal rhythms of different objects, actors, etc.
- To effect a viable periodization means identifying *relevant* change, which is both a *political* and *epistemological* problem.
- *Relevant change* can be discerned – in part – empirically through *synchronicity* and the wider the *scale* at which synchronicity is measured, the greater the relevance.

These points are presented in order to underline the fact that periodization is constructed, but not arbitrary; it is also meant to remind us that periodization is critically linked to questions of scale. In the wake of a revival of long-term perspectives in history, periodization becomes a more pressing issue (e.g. Corfield 2007; Gabaccia 2010) and one to which archaeology because of its long-term perspective is well-suited to address. However, the question of scale also needs to be kept somewhat grounded and down to earth. One of the things the reader might have noticed as I moved between challenge three and

four was a shift in the register of abstraction. My first three challenges remained wedded to my site in all its concreteness: structural remains, pottery sequences, even episcopal inventories. In looking outside the boundaries of my site, I started to enter the realm of more abstract periodizations: settlement age, commonwealth era, the Middle Ages. This is also the realm of those inherited periodizations which we feel so often straitjacket us. It is thus also the most dangerous part of my story, because it is here that we need to be most vigilant.

These regional periodizations like those used to carve up Icelandic history or even European history, always need to be brought back to earth: what specific objects or events are involved? What is at stake here is exactly the same issue as bedevilled my first three challenges: synchronicity. Do other sites in Iceland mirror Skálholt in where major change occurs? How many do so, and what are the exceptions and why? How much leeway do we give when suggesting change is synchronous – a decade, half a century, a century? Most important of all, what does synchronicity *mean*?

I have discussed the idea of synchronicity in another publication (Lucas 2015), but one important quality I wish to highlight in connection to it, is the related notion of contemporaneity. Contemporaneity as we often use it, is almost synonymous with synchronicity; when we say two sites are contemporary, we usually mean they occupy the same period of time. But even though we might acknowledge they do not start and end at exactly the same moment, we roughly lump them together as if they were synchronized. This ‘rough lumping’ however entails a series of problems, but beneath them all is a critical error: we define the contemporaneity of two objects in relation to a parcel or block of time, rather than as relation between two objects, *measured* by time (see Lucas 2015, for a more detailed discussion of this issue). In other words, we mistake contemporaneity as a relation to time rather than a temporal relation between two (or more) objects. The distinction is important.

Taking this observation and using it to think about periodization and synchronicity means that we need to treat synchronicity more critically and especially understand how it is just *one type of contemporaneity*. This has been most clearly articulated in Allen’s time interval algorithms, developed in the context of artificial intelligence (Allen 1983), where at least five different types of contemporaneity can be identified, of which synchronism is just one. Others include: where the end of one object or event overlaps with the start of another (e.g. my parents’ lives overlap with mine), or where the existence of one object takes place within the duration of another (my life occurs within the lifespan of a much longer-lived organism such as a tree). However, one might also distinguish total synchronicity against partial synchronicity: the one where two lives start and end at exactly the same time, as opposed to where they start (or end) together but end (or start) at different times (e.g. twins dying at

different times).

All this might seem overly specific, but it seems to me to be quite the opposite; synchronicity is ultimately what is at stake in any periodization which pretends to extend over multiple objects, events and places, and care in defining what kind of synchronicity is involved, would seem to me to be simply better science. But there is more to it than simply formal descriptions. At stake also is the explanation of synchronicity: why are events, objects and places synchronized at all? In many ways, this returns us to Collingwood's forgotten – or marginalized – view of periods as being defined by their epicentre (Collingwood 1927). For what Collingwood suggested was that to understand a period, one needed to do so from the inside; a period was less about what distinguished it from preceding or succeeding periods (i.e. marking change), but more about what held it together as a unity (i.e. its coherence). In a way, this is also about defining the meaning of what makes objects or events contemporary – but not solely as a temporal property but also an ontological one.

Synchronicity or contemporaneity ultimately implies a connection; two or more sites change at the same time, not through some magical coincidence or response to the Horologe of the Universe, but because they are connected in some way which means, in some way, we can treat them as part of a larger entity or assemblage (Lucas 2012b). In other words, larger-scale changes imply larger-scale objects. This is not the occasion to get into a metaphysical discussion of objects (e.g. see Harman 2016) and in some ways to make my point, it is sufficient to stress the inter-connected nature of things when dealing with larger-scale periodizations. In a discussion of global periodizations, this is exactly what Bentley argues – that to talk about a global periodization presupposes talking about the world as interconnected. How can we use the same periodization in Europe and North America in prehistory if their histories are not entangled in any way? A global periodization is one which will be based on those aspects which make the world connected: cross-cultural interaction (Bentley 1996).

I don't pretend to have resolved or even started to offer solutions to all the issues raised in this chapter, not least the politics of our periodization, but one thing is certain. Our current divisions – the big ones, such as between prehistory and history, or between ancient, mediaeval and modern history, dominate not only our conceptual landscape of the past but our institutional frameworks within which scholars study the past. This was a point made long ago by Gerhard (1956), and perhaps remains one of the biggest obstacles to rethinking our current periodizations and especially the ideological baggage of modernity. I have suggested that one way for us to contest these is to start always from our particular site or material and work our way up – or rather,

outward. How effective this will be in terms of institutional change, I am not sure. But we have to start somewhere. In doing this though, we will foreground what are perhaps the critical aspects in any periodization: synchronicity and contemporaneity. We need to acknowledge that periodization has a double aspect; its most salient quality and the one usually addressed in the literature, concerns its role in marking change. But its other, less visible aspect concerns its role in gathering or creating coherence within a period – or defining *relevant* change. I have devoted much more attention to the first of these in this chapter than the second, but engaging with the latter is the real solution to the problem that has stalked these five challenges in the guise of synchronicity.

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Part II

Narrative construction

6

Locked in the Neolithic between evolution and history

Trevor Watkins

The accidents of history that divide and fragment

After more than 200 years of enquiry, gathering information and analysis, we should be able to synthesize our knowledge and tell the human story from the emergence of the genus *Homo* to our own times. Unfortunately, we are at the mercy of several deep academic divisions that have fragmented the scope of that human story into a series of almost watertight segments. These divisions arose from the beginning of archaeology, and have been compounded by the rapid expansion and increasing compartmentalization of academic archaeology since the second half of the 20th century.

Sir John Lubbock, from his early years a neighbour and a protégé of Charles Darwin (Owen 2013), only six years after the first publications of *The Origin of Species*, set out to show that an evolutionary account of human ‘pre-historic times’ could be written on the basis of the archaeological material (Lubbock 1865). Christian Thomsen’s Three Age System had already established the priority of a Stone Age, and Lubbock made a basic distinction between an Old and a New Stone Age, the Palaeolithic and the Neolithic, a divide that still profoundly affects how archaeology works and how prehistory is perceived. Among many other achievements that have had a lasting effect on how we think of the deep past, Gordon Childe identified the Neolithic in the Near East as the scenario for socio-economic revolution on a par with the industrial revolution of recent historical times (Childe 1936, 1942). And Robert Braidwood focused the investigation of the Neolithic revolution on the origins of village farming in the “hilly flanks of the Fertile Crescent” (e.g. Braidwood 1960). From the 1960s, as archaeology grew prodigiously as part of the massive expansion of universities in the second half of the last century, more and more

young researchers followed their professors into the field. They were encouraged by new revolutionaries Lewis Binford (1968) and Kent Flannery (1969), who promoted the origins of agriculture as one of the two or three most important themes for scientific research.

Between those two major blocks of human history – the two-million-year-long story of hominin evolution down to the emergence and spread of *Homo sapiens* throughout most of the world on the one hand, and the emergence and development of urbanism, states, kingdoms and empires, and their rises, conflicts and falls on the other hand – there is a relatively brief wedge of time compassing the emergence of the first large-scale human communities, who began to live in networks of permanent settlements, supported by agriculture and pastoralism. I would claim – and many non-archaeologists certainly agree – that what I would call the Neolithic transformation was a pivotal point in the human story. The question for me is how to escape a comfortable, introverted small world of fascinating Neolithic research, sandwiched between the Palaeolithic-Pleistocene and history, how to bridge those crevasses that have divided historical scholarship and create a single account of human history.

For many decades there have been so many researchers working on aspects of the Neolithic transformation in Southwest Asia that we can hold our own workshops and conferences, where we talk among ourselves. Of course, that is how we learn more and advance our knowledge and understanding; but we Neolithic specialists are in danger of becoming locked into our conviction of the importance of our period. It is time that the community of researchers working on what they believe to be the most important period in human history turned outwards, and recognize the need to show why and how the Neolithic should be understood as the pivot or the fulcrum of human history.

Identifying a key to the human story

What is an appropriate framework within which a single narrative that unites the makers of the first stone tools, Palaeolithic hunter-gatherers, emergence and global spread of *Homo sapiens*, the Neolithic transformation and its downstream developments, the emergence of ‘historical’ states and civilizations, and all of subsequent history? The historian Daniel Lord Smail has offered a way to write a history that “begins at the beginning” (Smail 2008: 1); he called his project “deep history”, a way of writing the long-term history of the last two or three million years of geological “deep time” within which the genus *Homo* has walked the earth. The key element that distinguishes the human condition from that of other species, in Smail’s experiment, is what he

calls “neuro-history”; that is, the way in which the neurophysiology and cognitive psychology of the hominin brain has evolved in part in response to genetic evolution, and in part because of the unique plasticity that enables it to acquire culturally programmed emotions and responses. Smail is admirably perceptive, from my perspective as a Neolithic specialist, in recognizing that the Neolithic was a “fulcrum” in a “great transformation” (Smail 2008: 165). Living together in large numbers in permanent settlements, and the productive economics of farming constituted “a new neuro-physiological ecosystem [in which] the sorts of customs and habits that generate new neural configurations or alter brain-body states could evolve in unpredictable ways” (Smail 2008: 155). In particular, Smail links the capacity of farming to support inequalities of wealth and power to the emergence of ‘dominance hierarchies’, in which the behaviour of some individuals or groups can subject the psychology of others to their will. And building on that idea in the latter part of the book, Smail introduces the concept of ‘psychotropy’, the ways that people have used to affect their own mental activity, behaviour, or perceptions, or those of others, in the history of post-Neolithic times. While at first it may seem strange to seek to relate the effects on brain chemistry, emotions, feelings and perceptions of eating chocolate, drinking coffee or enjoying pornographic literature to the history of civilization, Smail (2012) explains how the growing density of psychotropic agents relates to how power operates in historically modern societies.

Together with the anthropologist Andrew Shryock, Smail undertook a programme of collaboration that brought together a multi-disciplinary group who worked in twos and threes to write the chapters in a bigger book of ‘deep history’ experiments (Shryock and Smail 2011); the aim of this book was “to offer a set of tools – patterns, frames, metaphors – for the telling of deep history” (Shryock and Smail 2011, Preface, p. xi). For my part, the last chapter, titled simply ‘Scale’, in which Shryock and Smail joined with the archaeologists Mary Stiner and Timothy Earle, presents the most productive and thought-provoking essay (Stiner *et al.* 2011). Their goal was to show that, notwithstanding the massive acceleration in population growth since the industrial revolution, “deep human history, too, is punctuated by momentous leaps in population, energy flow, efficiency, levels of political organization and degrees of connectivity” (Stiner *et al.* 2011: 247). In the rest of the chapter, they discuss a series of scalar leaps, starting with the population crescendo in the central and east Mediterranean regions between the beginning of the Upper Palaeolithic and the Neolithic periods and its relation to the transformation of the economic base with the emergence of farming. They go on to discuss how scalar leaps in the concentration of population relate to the emergence of urban societies and economies, and to the rise of inequality and the emergence

of political hierarchies.

All of the matters that Stiner *et al.* discuss are related in that they interact with one another, and I may have been subconsciously influenced by this book, and particularly its last chapter on scale, when I recently drafted a chapter for another publication, arguing that the Neolithic transformation consisted essentially in the upscaling of small world, mobile forager band societies to become the first large-scale societies. Together with Kim Sterelny, I have argued that cultural niche construction theory offers us an evolutionary framework that allows us to distinguish the various threads in the human story, map their relations with one another, and bring them together in a meaningful way around the Neolithic 'fulcrum' (Sterelny and Watkins 2015; Watkins 2016).

Niche construction theory is simply a way of envisaging or modelling the evolutionary landscape; it is a prominent part of what has been called the new extended evolutionary synthesis (EES), replacing what has been the standard view (the SET, standard evolutionary theory) (Danchin *et al.* 2011; Laland *et al.* 2015). The standard (simplistic) account of the evolutionary process has been that populations respond to pressure exerted by a change in their environment, such as climate change, the Last Glacial Maximum or the Younger Dryas cold phase at the end of the Pleistocene, for example. The colder climate might cause one animal population to move away from the increasing cold; in another species, those with thicker fur would survive better than those within the population with thinner fur, so that, over time, thicker fur would become the norm. Humans have been able to make cultural adaptations, such as becoming reindeer hunters, well-clothed to operate in a cold climate. Based on the old standard evolutionary theory, it has been argued that the move to cultivating cereals and pulses in the Levant was a cultural adjustment precipitated by the onset of the Younger Dryas cold phase, which reduced the density of the wild species on which the late Epipalaeolithic Natufian hunter-gatherers were accustomed to depend.

The clue to the newer understanding of evolutionary processes came with the recognition of the co-evolution of genes and culture. Gene-culture co-evolution was obvious in the emergence of domesticated forms of plants that had been subject to human cultivation, for example, and in those human populations who have depended on a particular kind of dairy diet and who continue to be able to digest milk products beyond infancy, when most humans become lactose intolerant (*cf.* Gerbault *et al.* 2011). The significant feature of niche construction (or in humans cultural niche construction) is that organisms of all kinds from bacteria to large-brained mammals engage in the construction of the niche within which they live, which means that they form their own evolutionary environment, which, in turn, exerts its own influence

on their way of life, the lives of successive generations, and often of other species. It is not surprising, therefore, that zoo-archaeologists, who had recognized the significance of gene-culture co-evolution, have been among the first and foremost in adopting cultural niche construction as the best framework for modelling the move from hunting and gathering to cultivation and herding (Laland and O'Brien 2011; Laland *et al.* 2001; Smith 2011; Zeder 2012, 2016).

Humans, especially *Homo sapiens*, have been and continue to be the paradigmatic niche constructors, because they have co-evolved cognitive facility and cultural skills in cultural learning (Sterelny 2011; Tomasello 1999). On that platform, from the early days of the genus *Homo*, humans have evolved unique cultural skills in cumulative cultural evolution, that is, the ability to experiment, innovate and incorporate evaluated innovations into the cultural package (Dean *et al.* 2014; Ghirlanda and Enquist 2007; Henrich 2015; Henrich *et al.* 2016). The dynamic ecological, environmental, economic, social, cultural and cognitive relations within the evolving human cultural niche offer us the framework for a narrative of the whole of human history (*cf.* Ellis 2015).

The accelerating curve of cumulative cultural learning

Perhaps the best way to begin is to consider the matter of accelerating scales. In the early days of archaeology in the 19th century, investigation of cave deposits began to produce new and quite unfamiliar kinds of chipped stone assemblages from contexts that were clearly of geological antiquity, and even strange human fossil remains. These were the traces of the Palaeolithic past, as Lubbock had defined it. For people accustomed to thinking in terms of a historical timescale in centuries, the geological past in which these traces of a human past had been found was unimaginably ancient and lacked a coherent chronology; for a long time, it was difficult to set the assemblages of flint tools and debris into any archaeologically constructed chronological sequence, other than the relative stratigraphy of the cave deposits in which they were found. The Palaeolithic seemed impossibly distant, terribly unfamiliar and, with little to calibrate its timescale, a seemingly interminable period without sense of the progression of time.

We now have a radiometric timescale for the period of at least two and a half million years from the first appearance of species that have been defined as members of the genus *Homo* to the boundary between the Pleistocene and Holocene periods approximately 11,600 years ago, the conventional end of the Palaeolithic. Against that background, cultural change between the Neolithic

and the earliest cities and states where writing was beginning to be used seems rapid. But when we enter the periods documented by written texts, historians can discuss events within the reign of kings. The pace of evolutionary change has been quickening throughout human history. Indeed, as Stiner *et al.* (2011) have shown, the story is one of a series of ‘scalar leaps’.

There seems little to link our personal experience of the passage of time, or our knowledge of recent history, to the historical scale of the Palaeolithic. Palaeolithic specialists and palaeo-anthropologists see the period differently, of course. Any recent account of the period records an acceleration of archaeological or biological evolution. To take one example, because it is illustrated by a quite dramatic graph (Figure 6.1), the human brain has changed in size and the proportions of its component parts over what is, in the terms of biological evolution, the quite short time span of the Pleistocene period. And the graph shows that the evolution of the human brain has been an accelerating process. The graph is based on the work of Robin Dunbar and his collaborators, and is a foundation layer in his social brain theory (Dunbar 1998, 2003). The expansion of the human brain, and particularly the expansion of the pre-frontal cortex, is graphed against time, but on the vertical axis Dunbar has translated brain size into the social group size that correlates with that brain size. Having shown that there is a relationship between the relative size of the pre-frontal cortex and group size amongst primates, Dunbar extrapolated that relationship to explore the social group size of hominins. In this graph he has arranged the hominins whose neo-cortex ratio can be calculated across the graph by age. What the graph shows is that the pace at which the human brain has evolved has increased remarkably and exponentially over time. Dunbar’s hypothesis is that the evolutionary expansion of the human brain, and particularly of the key part of it (the pre-frontal cortex), has enabled hominins to live more intense social lives in larger and more cohesive social groups.

Dunbar’s interest has been in the relationship between the cognitive power of the evolving human brain and the demands of increasingly complex social relations of larger social groups. Our closest primate cousins can just about manage two levels of intentionality; that is, they have the Machiavellian capacity to use one’s own mind to imagine what is going on in the mind of another person, and to manipulate a situation accordingly (Byrne and Whiten 1988). Contemporary *Homo sapiens* can regularly manage four levels, and occasionally five levels of intentionality; that is, for example the capacity that Shakespeare had in writing Othello, to manage what the audience would understand about Iago’s intention to deceive Othello, implanting suspicion in his mind so that he tragically misreads the innocence of Desdemona, bringing about Othello’s downfall, exactly as Iago intended – except that it does not

work out as we, the audience, feared.

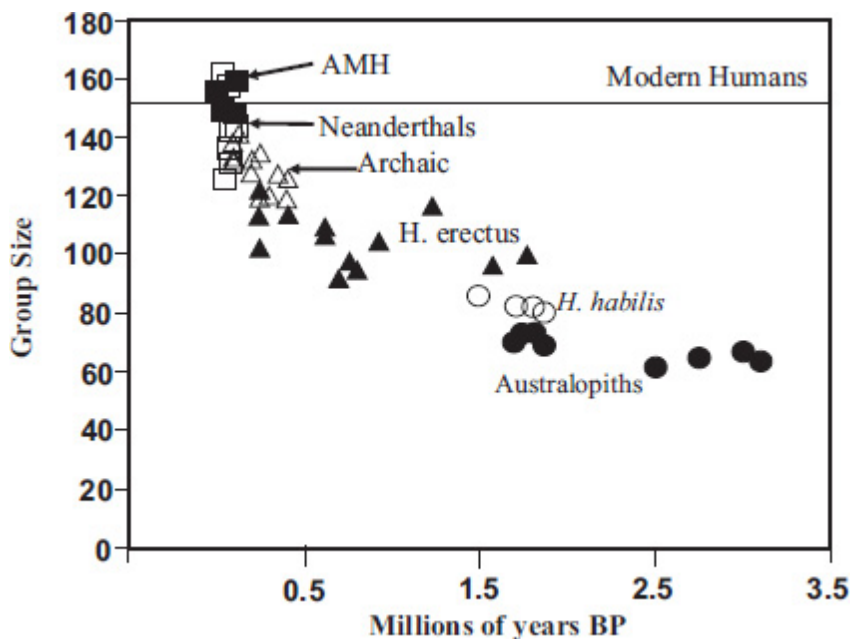


Figure 6.1 Social group size predicted for individual hominid populations using the regression equation for group size on neo-cortex ratio for hominoids

Source: After Dunbar (2003).

The increasing capacity of the evolving human brain also correlates with another, more archaeological component of the Pleistocene-Palaeolithic record, as Dietrich Stout (2011) has explored in the context of the neuro-cognitive skills required in the making of stone tools. In the 19th century many people were dubious about whether the Acheulean flints could be artefacts made by prehistoric humans; for many of us today the Lower Palaeolithic is an unimaginable million-year stasis. Stout and Chaminade (2009), however, show that those early hominins needed to be able to manage the conception of ‘hierarchically structured action sequences’ in order to make their seemingly ‘simple’ stone tools. Later in the Palaeolithic, innovations in core and platform preparation and in knapping techniques allowed tool-makers flexibility and the capacity to produce a multiplicity of different end products. Stout is interested in relating the complex hierarchical structures of the action sequences to the evolving cognitive ability to manage such complex hierarchies of know-how and skills. What particularly drew my attention was the graph that Stout included (Figure 6.2), illustrating the exponential growth of accumulated variation in stone tools between the earliest Oldowan and the latter end of the Middle Palaeolithic around 50,000 years ago. The curve mapped through time

is a proxy for the evolving cognitive ability to manage complex knowledge and skills, and it closely resembles Dunbar's graph of increasing neo-cortex ratio of the evolving human brain.

We have learned that the size of the human brain and the relative size of the pre-frontal cortex co-evolved with the size and cohesiveness of human social groups (Dunbar's social brain hypothesis). And we have seen that Stout argues persuasively that the increasing complexity and diversity of stone tool-making also correlates with the evolution of more powerful and complex cognitive skills. This is the place to add in the vital third ingredient, which is based on the capacity for cultural learning and transmission. What is special about culture in the human story is that, over the course of human evolution, humans have evolved the capacity to generate and accumulate cultural innovations and extensions (Dean *et al.* 2014). The acceleration that is implied in the graph of the relationship between neo-cortex ratio and social group size (Figure 6.1), and in the graph of increasing complexity and flexibility of stone tool technology (Figure 6.2) is indicative of the increasing capacity for cultural learning (e.g. Gärdenfors and Högberg 2017; Sterelny 2011) and cumulative culture (Henrich 2015; Henrich and McElreath 2003; Tennie *et al.* 2009), which has also been labelled as a ratchet effect (e.g. Tomasello 1999).

All of these elements in human evolution are involved in a series of co-evolutionary feedback loops; and all of these co-evolutionary feedback loops are also interrelated with one another. Together they add up to the accelerating scale, complexity and capacity for cumulative culture that is the human cultural niche. For a while, it seemed that the human story as told by evolutionary scientists, palaeo-anthropologists and archaeologists reached its climax with the achievement of 'modernity' in the 'human revolution' around the time of the European early Upper Palaeolithic, 50,000 to 40,000 years ago (Mellars *et al.* 2007; Mellars and Stringer 1989). The spread of *Homo sapiens* around the world was well underway, humans possessed fully 'modern' languages and Palaeolithic art showed that humans possessed the cognitive capacity for symbolic culture. That view was sabotaged from both directions. On the one hand, McBrearty and Brooks (2000) pointed out that many of the components of the supposed 'human revolution' had appeared gradually in the African Middle Stone Age over the preceding 50,000 years. What we see in the Upper Palaeolithic is not an explosion into modernity but the continuation of a process that can be traced back at least another 50,000 years. And looking at the proposed revolution from the opposite chronological perspective, Colin Renfrew (1996) argued that there was a "sapient behaviour paradox" between the claim of a 'human revolution' and the fact that so many of the characteristics that we think are fundamental to modern minds emerge much more recently. Renfrew later expanded on the subject, suggesting that what

was missing from the Upper Palaeolithic but present in the ‘sedentary revolution’ of the early Neolithic in was “the emergence of powerful concepts of value and of the sacred” (Renfrew 2008: 2041).

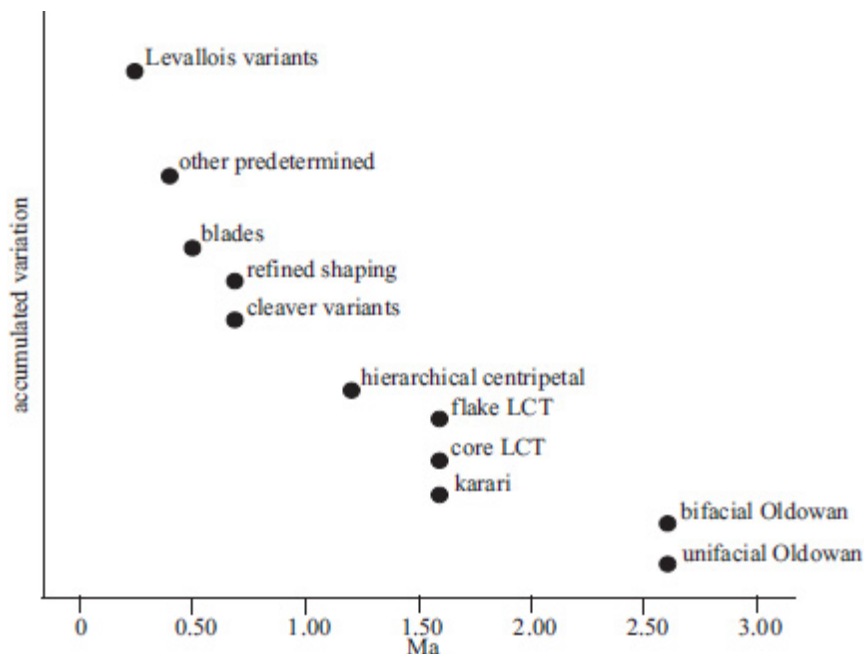


Figure 6.2 Levels of variation in different modes of chipped stone tool manufacture, arranged through time

Source: After Stout (2011).

The pivotal transformation in human cultural niche construction

Renfrew (2008) linked the emergent cognitive ability to create, manipulate and comprehend abstract and symbolic constructs as the critically important component of the new, sedentary societies of the earliest Holocene; I have written in somewhat similar terms of the importance of monumental architecture, and symbolic sculpture (Watkins 1990, 2004a, 2004b, 2006, 2012, 2014). Others have argued forcefully for the importance of the emergence and spread of agriculture for its effects in supporting massive population growth, for example, labelling it the Neolithic demographic transition (Bocquet-Appel 2002; Bocquet-Appel and Bar-Yosef 2008), together with its environmental impact, for example, linking the beginnings of agriculture to the onset of the Anthropocene (Balter 2013; Smith and Zeder 2013). The developments in symbolic representation or abstract values, the emergence of agriculture and

the development of large, permanent settled communities, among other phenomena, were important components. But in order to see how all these factors fit together and interrelate, we need to ask how the human cultural niche changed between the early Upper Palaeolithic and the Neolithic of the earliest Holocene.

From the earliest hominin tool-makers between two and three million years ago to the beginning of the Upper Palaeolithic around 40,000 years ago, there was a (relatively slow) acceleration of the interplay between social group size, brain size and cognitive abilities (Dunbar's social brain hypothesis), the growth of cultural skills (as we saw in Dietrich Stout's graph, [Figure 6.2](#)), and, by implication, the capacity for cumulative culture. The Neolithic transformation changed that. With the Neolithic in Southwest Asia, the number of people living together and the permanency of their co-residence were transformed. Over the period from the Last Glacial Maximum to the end of the early aceramic Neolithic, Epipalaeolithic and early Neolithic communities gradually changed their subsistence strategies, investing progressively in delayed return practices of harvesting and storing grasses, cereals and legumes, and in the hunting and trapping of medium and small animals, birds, reptiles and amphibians, until crop cultivation was sufficiently effective to make it economic to concentrate on domesticated cereals and pulses. Once a tipping point had been arrived at in the middle of the aceramic Neolithic period, herding of domesticated sheep and goats and, less universally, cattle and pigs very soon followed. Population levels accelerated over the latter half of the aceramic Neolithic as reliance on effective mixed farming grew. The third, and key, element in the rapid expansion and intensification of the human cultural niche can be identified in the increasing rates of cultural innovation, together with their rapid spread through the regional and supra-regional networks of sharing and exchange. Neolithic communities had found ways through new systems of material symbolism and symbolic practices to forge and sustain truly large-scale cultural communities (Watkins 2016). Recent experimental research confirms the effectiveness of early Neolithic networking, showing that "the ability to produce complex innovations is maximized when social information is easy to acquire and when individuals are organized into large and partially connected populations" (Derex and Boyd 2016; Derex *et al.* 2015). The ultimate feedback loop was between cultural accumulation, where innovation and the sustaining of complex innovation required large populations linked in networks across which information flowed easily and reliably, and the social and cultural costs of sustaining such extensive networks of large and dense population units. I accept Henrich's central thesis on the human facility for cumulative culture (and there is not space here to repeat his arguments): over more than two

decades of research, Henrich has arrived at the conclusion that “cultural evolution became the primary driver of our species’ genetic evolution” (Henrich 2015: 57).

Henrich argues that the key feature of human cultural and social evolution has been to ensure that there are sufficient numbers in the population, with maximum interconnectedness: the larger and more complex the body of cultural knowledge, ideas, and behaviours, the greater the scale of population that is required to support it, and the greater the need for intensive sociality and social interaction within that population unit (Ghirlanda and Enquist 2007; Henrich 2004; Shennan 2001, 2009; Sterelny and Watkins 2015). I would add that the emergence of the extensive and intensive networks of large, permanent communities in the Neolithic of Southwest Asia at the beginning of the Holocene (and in other parts of the world in the following millennia) constituted a significant breakthrough. The social exchange networks that had existed for tens of millennia among mobile forager bands were scaled up in intensity and extent to become the powerful networks of cultural sharing and exchange that linked settled communities into regional super-communities (Watkins 2008, in press). These became the world’s first large-scale societies. People had evolved new ways to expand the social and cultural niche in ways that were limited neither by Dunbar’s constraints on the social brain nor by the carrying capacity of the landscape for hunter-gatherer groups. As population densities increased, both generally within the landscape of the core areas of Epipalaeolithic-Neolithic innovation in Southwest Asia, and within the increasingly large settlement populations, levels of competition inevitably rose, prompting greater rates of cultural and genetic co-evolution. From the beginning of the Neolithic onwards, there was a notable acceleration in the pace and scale of cultural change, which marks the most obvious surface difference between the seemingly flat and scarcely changing cultural landscapes of the Palaeolithic and what Smail (2008) calls ‘post-Neolithic history’, that is everything from then till now. Human cultural niche construction continued to grow in intensity, producing unprecedented levels and rates of social, economic and cultural change. From the Neolithic onwards, history is the story of the ever-accelerating rate of evolution of ever more powerful and extensive forms of cultural niche.

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Illustrating waves of time in prehistory and the Annales' solution

John Bintliff

Introduction

A well-detailed painting of an 18th-century English provincial town ([Figure 7.1](#)) offers us a first insight into the question of Time and Process in the historic past. Along the wide street we see several individuals, some are interacting with each other. At a superficial glance this is a genre image, similar to other views of everyday life in a small town almost anywhere in the Early Modern Western world, the only distinctiveness being fashions in dress and architecture for that century. Nothing special to learn from. This would be totally misleading, as urban specialist Mark Girouard (1990: 101–107) takes us into the emic and etic meanings the picture offers.

First, this is a genuine record of a specific street in a specific town at a specific point in time, the artist lives in this street and moreover the people shown are recognizable historical individuals of his close acquaintance. With the help of archival records we can flesh out their names and lives. On the left, for example, Scott's neighbour William Toldervy is talking with their landlord Martine Dunne on horseback. Beyond them also on the left, John Thomas is sitting with his wife outside the pub he is landlord of, the Seven Stars. Across the road to the right is probably Harriet Price before her family residence, and beyond her "a little old man in fusty brown" is John Aingell, standing in his doorway. In fact several other known individuals are identifiable in this picture, and like those already mentioned, their lives and work can be reconstructed from contemporary archives of the town.

So at one level we are looking into the lives and social interactions of unique agents in a defined moment in time, the world of individuals, events and year-defined places. So much for the emic level. But the urban-historian Girouard

uses this snapshot to encapsulate a medium-term historical process, the dramatic transformation of English and other contemporary West European towns towards a ‘gentry’ society dominated by the landed elite – ‘polite society’, contrasted to what can be shown for preceding centuries. At the etic level, then, we are observing the culmination of economic and social processes which go back at least to the 14th century ce (Britnell 2009). We might take this even further, by placing this form of novel urban life into the long term, the *Longue Durée*, since it represents a stage in the constant evolving of urban life that goes back at least 9,000 years, as the chapter by Ian Hodder in this volume will be reminding us.



Figure 7.1 View of Broad Street, Ludlow by Samuel Scott, c. 1765

Source: Detail from Girouard 1990: fig. 123.

I have chosen to tie my discussion in this chapter into the three levels or waves of historical time promoted by the French *Annales* School of History, because for me, and for many other archaeologists (e.g. Bintliff 1991a; Knapp 1992; Barker 1995; Bintliff 2012; Broodbank 2013) and ancient historians (Horden and Purcell 1998), this form of Structural History (*cf.* Braudel 1972; Bintliff 2004), provides the most effective methodology to analyze the Past and reconcile what has too often been portrayed as an unbridgeable gap between the medium and long term (most commonly focused on by prehistorians) and the short term (the neglected world of people and events in most prehistoric studies). In fact a central dispute between the New (Processual-Modernist) Archaeology and Post-Processual (Postmodern) Archaeology on the issue of human agency and the individual in the Past, becomes in this light an unnecessary conflict of approaches due to a neglect of the achievement of the *Annales* historians in solving this problem (Bintliff 2004).

One often observes two reactions to the Annales' School amongst non-historians. First, the movement, and usually just Braudel, are widely cited, but far less often read, so that the subtlety of the movement's books and papers are little understood. Second, Braudel's personal conclusion from preparing his masterpiece *The Mediterranean and the Mediterranean World in the Age of Philip II* (1972), that the Long Term ultimately dominates historical trends, relegating events and individuals to the background, has been challenged. This latter critique is justified if one ignores the fact that the generation after Braudel, notably Le Roy Ladurie (cf. his *Montaillou* (1978) or *Carnival* (1979)), chose deliberately to counteract Braudel's reading through monographs where a more interactive historical process linked the Annaliste waves of time, and in particular human agents and events are given a high profile in the making of history (Bintliff 1991b). This present chapter will also engage with that same crucial dialectic between the waves of temporal process.

It is also the case, that a full deployment of the Annaliste approach implies studies of great breadth in time and space, while the vast majority of research publications are understandably far less ambitious. Yet the runaway success of Cyprian Broodbank's magnum opus on the pre-Classical Mediterranean – *The Making of the Middle Sea* (2013), with an avowedly Braudelian underpinning, the constant cross-referencing in ongoing historic studies of the Mediterranean world to Horden and Purcell's *The Corrupting Sea* (1998), together with my own more spatially modest long-term Annaliste-style synthesis of the archaeology and history of Greece from the Palaeolithic to the 20th century – *The Complete Archaeology of Greece* (2012) – reveal that the Annales' approach provides a central inspiration for the creation of higher-level syntheses of the human past.

We also, however, need to nuance the anthropocentric stance that the theory of agency promotes. Just recently we have seen the coinage of the term 'Anthropocene' to mark the unparalleled human abuse of the Earth since 1950 (Hamilton *et al.* 2015), but before the Early Modern Era our relationship with the natural environment has been one of mutual interaction rather than mere human dominance on a passive Earth. This should remind us that our ambient ecology also has its own waves of temporal processes. This can be both 'short term' (i.e. within our own observation) and medium to long term. Intriguingly, we may remain unaware of significant short- and medium-term behavioural trends in our environment, even if their short-term manifestations prove inescapable. Recent research on plant cognition has pointed out that botanical individuals and communities have a dynamic mental world well beyond traditional assumptions of their passivity, but the demonstrable actions of plants to their changing environment occur usually in a form, or on a timescale, which largely escapes human observation (Ananthaswamy 2014).

The Longue Durée

Most notably in Palaeolithic studies, the dominant observation is of a recurring *mode de vie* or lifeway that appears to be maintained by human groups over, for us, unimaginable lengths of time, tens of thousands or even a hundred thousand years. To take as our example a recent study of the Palaeolithic of Levkas Island in Adriatic Western Greece (Galanidou *et al.* 2016), Middle Palaeolithic hunter-gatherers had a well-defined set of favoured locations for base camps and temporary sites closely matched to specific limited ecological niches over some 200,000 years. Taking also into consideration sites of this period from the mainland of Greece, the authors identify a ‘landscape of habit’:

the Neanderthal life routine which comprised visits, encounters or stays on the perimeter of water-holding basins and depressions, on high places offering commanding views of the landscape, and in the naturally confined locations of caves.

(Galanidou *et al.* 2016: 26)

The recurrent use of these locations and the limited nature of the lithic findspots for detailed analysis, beyond identifying specific activities at these locations, block the possibility to focus on medium- and short-term trends or events, although ethnographic parallels would suggest that utilization of each locale could vary over time, even across individual years, to match minor changes in climate, animal and plant resources, and the social composition of each hunter-gatherer group. A flexible adaptation to cognized ecological conditions is more likely to lie behind such recurrent behaviour than cultural memories handed down over countless generations, as cogently argued by Geoff Bailey (1997) in his monograph on the Klithi rock shelter on the adjacent western mainland of Greece. Here the bias of the archaeological record forces us to concentrate on what the *Annales’* historian Le Roy Ladurie (1974) memorably termed ‘stationary history’ (*histoire immobile*), although clearly what is left on the ground still bears witness to human actors and their decisions, at least as far as concerns the basic resource procurement. When finally a long-term *mode de vie* changes into a different constellation of behaviours, it may only be datable to a period of a thousand or more years, yet represents what that most historically minded of palaeontologists, Stephen Jay Gould, termed Punctuated Equilibrium (Gould 1989; Bintliff 1999).

Commenting on Bailey’s theoretical and indeed philosophical approach to the Palaeolithic sequence at Klithi, I have paraphrased his methodology elsewhere, thus (Bintliff 2012: 42):

At Klithi the smallest unit of observation is 500 years and that site is part of a system of sites whose total span of use is 100,000 years. This is a landscape dominated by processes too slow for human perception to have comprehended in a single lifetime. No existing archaeological or anthropological theory is ready to deal with this, so it is better for archaeologists to create useful theory to relate to the realities of the data. This study as a whole prefers to take a view where landscapes, plant, animals, and humans evolve together and in constant close relationship. Here events and persons are relevant only in terms of the creation of higher-level entities and behaviors at the group or landscape level and over persistent periods longer than the normal perception of a single person. Acceptance of this philosophy of the past would lead us to rethink both that past and ourselves, allowing us to learn openly from our data rather than be forced endlessly to repeat dogmas derived from preconceived ideologies and philosophies.

It might be thought that the advent of farming and the associated spread of permanent nucleated settlements, together with social and political elaboration, would give rise to a constantly changing set of human behaviours, but nonetheless ecological considerations will often continue to favour long-term locational preferences reminiscent of hunter-gatherer life. A good illustration is the concept from German historical geography of the 'settlement-chamber' (*Siedlungskammer*), where a circumscribed niche of landscape suitable for sustainable, intensive mixed farming is repeatedly the magnetic attraction for a nucleated community. As Lehmann showed for the island of Crete (1939), micro-locational migration of village settlements around, but still remaining within, the niche offers a Long-Term insight into secondary considerations such as defence, external contacts, or logistical least-effort factors which vary between various cultures occupying the niche (related to Whittlesey's (1929) concept of 'sequent occupance' in historic landscapes). To take a striking example from our own regional project, in the Valley of the Muses in central Greece, our intensive survey of the entire landscape revealed the existence of a sequent nucleated settlement shifting alternately between a location in the centre of the lowlands, and on its defensive hilly rim, over a time span of some 5,500 years (Bintliff 1996, 2000).

The Medium Term (*Moyenne Durée*)

For the medium-term wavelength of historical processes let us begin with prolonged fluctuations of climate. Here we are not merely concerned with describing processes operating over centuries, but rather how human societies

are affected by such changes in their ecological conditions.

Within the 10,000 years of our current interglacial warm period, the Holocene, palaeo-ecologists have recognized since the early 20th century a series of climatic phases of several millennia duration, typified by long-persisting patterns affecting the whole Earth, of warmer, drier, colder or wetter climates: the Preboreal, Boreal, Atlantic, Subboreal and Subatlantic Eras (Roberts 2014). These undoubtedly formed a fundamental condition that first, post-glacial hunter-gatherers, and subsequently, agropastoral communities, had to adapt their practices and settlements to. However let us focus rather on a further series of more irregular climatic fluctuations, occurring within those longer-term climate eras, and which appear to operate at the timescale of a hundred or several hundred years. Their number is still subject to ongoing research, but at least five appear to be well-attested, two of which are clearly evidenced within prehistoric times for Europe and most of the Mediterranean region.

The first occurs in the final centuries of the third millennium BCE, and is sometimes termed the 4200 BCE event (Wossink 2009; Meller *et al.* 2015). It is not so much one event than a dramatic change in climate lasting up to two centuries, characterized by drought, and can be associated with major cultural reversals and settlement contractions in well-studied regions of the Eastern Mediterranean, including the unsettled era in Egypt called the First Intermediate Period linked to low Nile levels (Hassan 2010), and the de-urbanization of the southern Levant (Rosen 1995). In the Aegean, complex societies of the Early Bronze Age II period collapse, despite being based in distinctly different cultural groups – on Crete, the Cycladic Islands and on mainland Greece (Bintliff 2012).

The Late Bronze–Early Iron Age presents a second pre- or proto-historic episode of climatic downturn lasting several centuries (see Knapp and Manning 2016 for a critical review). In the eastern Mediterranean the climate had been trending to greater aridity through the Bronze Age, but in the final centuries before 1000 BCE and for several afterwards, persistent drought including episodes of an extreme kind seem documented from multiple forms of environmental proxy data. The downfall of the central Anatolian Hittite Empire, and the palace civilizations of Mycenaean Greece, which occurred at this same period, were caused proximally by destructive warfare, but most plausibly were also linked to agricultural crisis brought on by climatic stress.

Undoubtedly contemporary societies were aware of the changing climate, but not presumably warned of its severity beforehand, or of its likely duration, and hence often, but not always, unable to respond suitably to ward off its effects. Thus the eventual outcome could be very diverse, dependent on the nature of the reaction by regional societies. Arne Wossink, in the case of the

4200 BCE fluctuation, finds contrasted impacts on local societies in the Near East, which can both reflect varying environmental conditions but also different economic and political responses. In some regions settlement desertion or contraction is observed, while in others the response allowed sustainable maintenance of the existing settlement system. It may be that favoured regions became refuges for populations fleeing areas that were no longer sustainable. As we have observed for the three major cultural regions in the South Aegean, the same phase of prolonged negative climate, although it is tied with a contemporaneous decline, led subsequently in the Middle Bronze Age into three divergent forms of society. On mainland Greece there follow several centuries of depressed culture, low populations, a virtual absence of monumentality or political complexity. On the Cyclades population shifts to a dominant form of settlement nucleation, but Middle Bronze Age island populations develop a highly original and flourishing culture within an elaborate urban society. On Crete the revived Middle Minoan communities construct a series of major palaces, arguably the focus for extensive states.

In this example we are led into further insights into the nature of medium-term cyclical processes, because the outcome of this phase of climatic instability, when climatic conditions revert to more predictable and manageable levels, is very different according to the varied regions of the Near East, and the three distinct regions of the Aegean we have just itemized. Contrasted outcomes to a common causative factor are a major feature of Chaos-Complexity theory (Stengers and Prigogine 1997; Bentley and Maschner 2003; Bintliff 2003). That body of theory suggests that the effect of a particular novelty will be dependent on the prior state of the object it engages with, prompting bifurcations in the path of development between regions subjected to the same stimuli.

The Short Term (the time of événements)

In Settlement Chamber applied theory, sometimes the migration-moment of a settled community around a circumscribed environmental niche can be tied to a short-term event. Thus in the Valley of the Muses landscape presented earlier, the serious decline of the Early Bronze Age community dwelling in the lowland centre of the valley was probably followed during the recovery phase around 1600 BCE by a move from its undefended lowland to a strategic rocky hillside above that location, at a time when society may have been transforming into a more territorial and militarized character. A return to the same exposed valley bottom occurred at the end of the next, Late Bronze Age period with the collapse of Mycenaean palatial civilization and a likely

downscaling of social complexity around 1100 BCE. Within historic time we can do even better in refining the timescale: around the first decades of the 13th century ce an incoming Crusader landowner displaced the lowland village back to the same rocky hillside, where he constructed a feudal tower to dominate these indigenous serfs, while in the final decades of the 16th century and the first decades of the 17th century an empire-wide shift in landownership and regional power-structures within the Ottoman Empire led to desertion of this hillside village towards a new valley bottom location closer to the outer rim of the settlement niche. Improvements in dating methods and intensive excavation combined would probably allow us to bring a similar precision to the prehistoric relocations described above.

On the community level archaeologists have observed very widely how material culture distinguishes a particular village from its contemporaries through mortuary practices (e.g. Sayer 2013). For Anglo-Saxon or Provincial Roman rural society, despite strong influences due to communal migration or interregional cultural transmission, respectively, a process of ‘place-making’ in the landscape is the context within which each village marks its distinctive identity through acts of commemoration of its deceased members which reflects a living society describing itself.

At the family level, the increased sophistication of settlement archaeology using large-scale open-area excavation allows the tracing of generations of households as one house goes out of use and is replaced on an adjacent plot, along with its construction pits and rubbish zones: good examples can be found for Neolithic and later prehistoric rural settlements in Germany (Zimmermann *et al.* 2004) and the Netherlands (Fokkens 1996).

As for individuals, an excavated burial, not least in our age of DNA, isotope analysis and palaeopathological studies, allows us to identify place of origin and diet (Shishlina and Larionova 2016) and family relationships (Bouwman *et al.* 2008). The accumulation of physical traces of work, lifestyle, diet and disease may contradict assumptions about an individual based on apparent signs of status in dress and grave goods, for example with the Early Iron Age cemeteries at Hallein and Halstatt (Schwidetsky 1978; Bintliff 1989).

We earlier commented that Palaeolithic archaeologists, such as Geoff Bailey, have observed that their general inability to document the short term, and the lives of individual past actors or events (apart from aspects of biography detected in the bodies of hominids), represent an alternative perspective on the Past, emphasizing both long-term regularities and major trends in human life and society. Yet it is also worth considering to what extent actors in the short term behave with any systematic awareness of their place in historic processes, especially in the light of recent advances in neuroscience (Carter 1998; Bintliff 2005). What this new subdiscipline has taught us is that our brain is a constant

semi-automatic processing machine for registering and classifying daily experiences; however the major part of this goes on subconsciously. Our actions, more significantly, are also more often than not the product of subconscious responses to outside stimuli rather than measured and conscious behavioural decisions. At the end of World War II the composer Richard Strauss, in writing his tone-poem *Metamorphosen*, was inspired by these lines from Goethe (from *Zahme Xenien* VII), to sum up both his despair at comprehending the history of his age and his belief that he had tried to keep his own sense of unique being:

No one can really know himself,
detach himself from his inner being
Yet, each day he must put to the test,
What is in the end, clear.
What he is and what he was,
what he can be and what he might be.

But, what goes on in the world,
No one really understands it rightly,
and also up to the present day,
no one desires to understand it.
Conduct yourself with discernment.
Just as the day offers itself;
Think always: it's gone well up to now,
so might it go until the end.

A time machine across the Braudelian waves?

It is generally assumed by historians, including Annaliste historians, that for ordinary people, everyday human awareness of processes in Time – till the advent of accessible and reliable historical accounts in the Early Modern Era – has focused on the Short Term, especially that of the three generations of family memory (Foxhall 1995; Sant Cassia 1999). As for the Medium Term, centuries or more, knowledge was confined to the sporadic and localized accounts of political, military and religious events preserved in restricted elite archives. Le Roy Ladurie in his classic, microhistorical study of everyday life in a village of the High Middle Ages in south-west France (Ladurie 1978) devoted a whole chapter to 'concepts of time and space'. History was absent or almost absent from Montaillou culture. All the people knew on the subject were a few scraps of eschatology derived from Christianity and various other beliefs. The memories of the farmers scarcely went back further than their previous feudal

lord, the Comte de Foix, who had been kind to his subjects but an enemy to tithes and the church. The people of Montailou lived in a kind of 'island in time', even more cut off from the past than from the future. "There is no other age than ours," said one. This absence of an historical dimension went with a general use in speech of the present indicative tense without logical connections with past and future. It need hardly be added that knowledge of a non-mythical Long Term has usually been absent from both popular, and official, elite forms of historical memory.

For prehistory we lack human voices to interact with these concepts, but clearly a challenge might be raised from the material culture record. Upper Palaeolithic caves in France and Spain were revisited over periods up to 10,000 years to make symbolic culture, a practice where often a clear awareness is shown of the nature and location of earlier, often astonishingly older, representations in these galleries (Bahn 2016). The prehistorian John Barrett (1994) has argued in a similar way, thinking more of prehistoric British monuments such as the henges and megalithic barrows, that a theory of agency can be developed which privileges active individuals over all our waves of time from short through medium to long, using ideas regarding social memory. Sustained oral narratives of events, places and people could, he suggests, be tied to monuments in the landscape, endlessly repeated from generation to generation, thus breaking the unattractive interpretation of a Past dominated by processes for the most part inaccessible and imperceptible to individuals.

Such a theory can be tested against recent ethnohistoric evidence. Careful analysis of the myths and legends associated with the classical city-states of Greece has shown the regular recasting of these tales to suit changing contemporary political and social conditions within each state (Hall 1997), even if fragments survive from each layer of former historical events and each invention of new traditions. The anthropologist Robert Layton points out (pers. comm.) that his experience of defending Australian indigenous tribes against mining and other non-native encroachments on tribal territory has had to tread a difficult path: while a tribal group is aware of its sacred places that mark the core of traditional land, the historic records make clear that tribal groups have migrated over time, so that current occupants were probably not descended from previous owners of that part of the landscape.

To take this discussion into a genuine prehistoric context, Joseph Maran, excavator of the great Late Bronze Age fortified palatial centre of Tiryns in the Plain of Argos, Greece, has recently tried to explain why the core of that Mycenaean palace overlies a large tower-monument of the Early Bronze Age, some 1,000 years earlier, with no significant intervening monuments to suggest any continuity of monumental symbolism (Maran 2016). After destruction of

the earlier tower, it was soon covered by a tumulus. The settlement itself was refounded around that mound, in part built over it without clear respect, and when the first Late Bronze Age palace was constructed, it was built onto the tumulus, concealing it from sight and memory. The palace was eventually destroyed in its turn, and in an apparent effort to resurrect some pale imitation of *that* institution, a small copy of its central building was briefly erected and used above it – a new act of social memory with perhaps, in this case, a genuine awareness of the shortly preceding palace-society it attempted to restore, but in vain.

According to Maran, the decision to choose this area for building new monumental structures, the Late Bronze Age palace, was guided partly by the wish to relate to the tumulus, an important monument of long ago. It became the focal point for the *construction* of a social memory, in which the existence of the mound was most likely explained through ever-changing mythological narratives about heroes and deities of the distant past. These narratives only led to architecturally tangible consequences after many centuries, when and under specific historical conditions, political actors began to draw on oral traditions. They did this in order to transform the area of the tumulus in Tiryns into a location for the central structures of a palace. The way in which the much-earlier tumulus at Tiryns was integrated into new narratives exemplifies what social memory research has termed ‘founding memory’, i.e. the use of the past for legitimizing the present.

A parallel is drawn by Maran in the founding of the Olympic Games at the sanctuary of Olympia in western mainland Greece, with the central role played there by a similarly much-earlier monument. Here a ritual (non-burial) tumulus had been constructed in the same period as the Tiryns Rundbau, Early Bronze II in the mid-third millennium BCE. Already in the succeeding EBIII period domestic buildings no longer respected its borders, but a sufficient monument was still standing when 1200 or so years later a new sanctuary was established in the Early Iron Age, privileging the now ‘primeval’ mound as its focus. The early period of the Olympic Games are believed to have been primarily a regional focus for aristocratic piety and display, and for this purpose the EBII ritual mound was now identified with the grave of the legendary hero Pelops, at whose funeral games the first athletic contests were supposed to have been held at Olympia. As Maran comments, in a close parallel to Tiryns, at Olympia we see impressive evidence of the intricate ways in which a monument of a chronologically distant period was chosen in a much later one as a focal point for *constructing* social memory and initiating a new use for its site.

To take a final example from the Iron Age of Italy, Douwe Yntema, from his researches into proto-historic communities in south-eastern Italy, suggests that

native communities utilized Greek ceramic imports they found in disturbed older graves to illustrate mythical claims to their origin from the Aegean, at a time when the Greek colonial presence in southern Italy made such a claim highly attractive (Yntema 2009).

Conclusion

The purpose of Annaliste Structural History, when applied to archaeological data, is to remind us to attempt to document human behaviour at all relevant levels of time. Traces of persons and events can be detected with increasing difficulty as we move back through millennia and then hundreds of millennia. Yet encouraging signs of progress to catch at least elements of the short term can be observed, through meticulous open-air excavation and multi-disciplinary investigation of human bodies, while even aspects of contemporary worldviews or mentalities are suggested by burial gifts, musical instruments and symbolic material culture. However, we have suggested that the consciousness of agents may only operate on a restricted scale even within a single human lifetime.

We find the medium term far easier to encapture in archaeology, where larger structures emerge in settlement patterns, monuments, demography and economy, also genres of art. Nonetheless the transition or often rather process of transformation from one recognizable cultural phenomenon to the next has often been a problematic issue to approach. The Annales concept of *Problème Histoire* is a relevant methodological tool (cf. Le Roy Ladurie 1979): why did one new trajectory emerge quite differently to another society under similar conditions? We find a close parallel here in the ‘Butterfly Effect’ of Chaos-Complexity theory, where subtle contrasts in initial conditions can cause exaggerated divergences in the development of two systems. Clearly this is also a natural focus to allow us to close in on the relationship between the short and medium term. The subsequent persistence of a way of life, a form of society, can fruitfully be analyzed in terms of another concept, that of Emergent Complexity (Bintliff 1997, 1999).

The Long Term, in Palaeolithic studies, is clearly the default position. This is not merely owing to constraints on the level of inferences possible from the chronological breadth represented by surface sites or excavated levels in caves or open-air sedimentary environments. Additionally, for extraordinary lengths of time, a mode de vie is sustained – clearly successfully, but leaving little scope for subtler penetration into processes operating at shorter timescales beyond the window opened through skeletal analysis into an individual’s biography. Bailey’s compensatory claim, is to emphasize the genuine

advantages that Longue Durée study provides for delineating a series of fundamental relationships between humans, flora, fauna and landforms as they gradually morph across hundreds of millennia.

Our primary task then, in the business of 'Time and Process' in archaeology is to continue to push against the evidence, with improved technologies, analyses, and models, with the aim being to increase our resolution into how the different wavelengths of time work dialectically at every moment since humans emerged on the Earth some four million or more years ago. Broad Street in Ludlow, c. 1765, is our ultimate model to pursue.

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What kind of history in prehistory?

Alex Bayliss and Alasdair Whittle

Kinds of history and three propositions for archaeology

We have used the term ‘history’ quite frequently in our previous writing. We named a study of southern British early Neolithic long barrows *Histories of the Dead* (Bayliss and Whittle 2007), and at the end of *Gathering Time* we called for an end to ‘fuzzy prehistory’ and for the ‘pre-’ to be taken out of prehistory (Whittle *et al.* 2011: 914). We subtitled a discussion on the long sequence of settlement and burials at Alsónyék-Bátaszék, Hungary, from the earlier sixth to the mid-fifth millennium cal BCE, “towards the history of a persistent place” (Bánffy *et al.* 2016). Now we have been asked to contribute to a volume considering the relationship between archaeology and history. So what do we talk about when we talk about history? Is this anything which historians themselves would recognize? And why is this important for ‘prehistorians’?

One recent survey concluded that “what is remarkable today is the attempt of historians ... to achieve the ‘history of everything’ from microhistory to macrohistory” (Kelley and Smith 2012: 101–102). Two books alone can serve to illustrate this: a very wide synthesis and global perspective, if not a grand narrative, about 19th-century Europe (Evans 2016), contrasted with the life, travels and adventures of one woman in the mid-18th century (Colley 2007). Such diversity seems to us to make space for the claim to be able to write some kind of history in, and for, what is usually termed ‘prehistory’. There are at least three strands in this argument: a mutual interest in creating narrative, and the choices which that inevitably raises; the shared challenge of incomplete sources; and what should be a joint concern for particularizing rather than generalizing accounts of the past. What kind of history we can aspire to write with archaeological evidence, and how, we will explore briefly below, illustrated by three case studies presented as text boxes.



Figure 8.1 Map showing the location of Neolithic sites included in the case studies

Narratives

It would be absurd to claim that historians only write narratives. In *The World Turned Upside Down*, the brilliant analysis by Christopher Hill (1972) of the beliefs of 17th-century radical groups in England, only the penultimate chapter, ‘The World Restored’, is given to a brief narrative of the defeat of alternative worldviews. But most historical writing is underpinned in one way or another by narrative, more often than not framed by precise chronologies. By narrative, we understand the extraction of pattern and linkage, selected from the facts of a sequence or chronicle, leading to the creation of a story or a point of view. One of the best discussions of the nature of narrative was given by Paul Ricoeur (1984). Ricoeur offers the essentially simple hypothesis that “historical events do not differ radically from the event framed by a plot” (1984: 208) and concentrates on the process of creating plot rather than on seeking to force it into a limited number of predetermined categories. For him, plot pulls things together and makes sense of them (Ricoeur 1984: xi). This is because the temporal character of human experience is central (Ricoeur 1984: 3). Further, “emplotment brings together factors as heterogeneous as agents, goals, means, interactions, circumstances, unexpected results” (Ricoeur 1984:

67). His position is neatly summed up in the claim (Ricoeur 1984: 178) that “if every narrative brings about a causal connection merely by reason of the operation of emplotment, this construction is already a victory over simple chronology and makes possible the distinction between history and chronicle”.

When John Arnold (2000: 13) asserts, more simply, that historians tell true stories (in the sense of being consistent with the available evidence), he is reflecting a revised attitude to narrative, following the postmodernist assault on history led by Hayden White, Rorty and others (Jenkins 1995). That sustained challenge led to many robust responses, among them by Richard Evans, with his *In Defence of History*, but with explicit acknowledgement of the selectivity and creativity of narrative (Evans 1997: 248). That instantly raises questions of scale (Gaddis 2002: 96). For Evans (2016: xiv–xvi), writing about 19th-century Europe, this is a matter of choosing between the varying threads of nationalism, emancipation and power, and of balancing a grander narrative with specific case studies of particular individuals and situations. Many historians now operate within what has been called the Short Past, covering a century or so, or decades (Guldi and Armitage 2014: 50, 59–60). Keith Thomas (2009: 4) refers to his concept of the early modern period, from 1530 to 1780, as “so long a period”. Some concentrate on what has been called microhistory (Brewer 2010), at the scale of individuals and particular contexts. John Lewis Gaddis (2002: 33–34, 125–126) has compared the writing of history to the process of mapping. Making maps involves selecting a scale and choosing what to include and what to omit, since putting everything in would result in a map as large as the world itself. That selection is normally determined by the practical purposes to which a map is to be put.

The advantages of the close-ups of microhistory can be offset by lack of definition of their wider context and significance. One critic goes so far as to call microhistories “navel gazing” (Vernon 2014: 132). Brewer (2010: 90) envisages (though he does not set out how this is to be done) an ideal amalgam of “grand narratives” and “microhistories”. There has also been reaction recently to the Short Past, which is acknowledged as the currently dominant temporal trope among historians in general. Guldi and Armitage (2014: 87) call for much more counter-balancing attention to the Long Past, ‘the arena of long-term discussions of time’ and ‘the apprehension of multiple causality’, not least for the benefits which a long historical perspective might bring to the understanding of pressing modern problems such as climate change and social inequality, by countering short-term political responses and decisions. But their discussion of the specific spans of the long timescales which they seek to revive is disappointingly brief. It appears to cover anything from hundreds to thousands of years (Guldi and Armitage 2014: 20–28, 86).

Many archaeologists have seen themselves as the guardians of the long

term, or “deep history” as it has been called more recently (Shryock and Smail 2011; Gamble 2013, 2014). The chronological currency of many accounts, however, in a variety of interpretive styles, has been no more precise than centuries at a time. Those interested in events or eventful horizons are few and far between (Bolender 2010), and many others have pursued particular kinds of theme and context by dodging chronology altogether, placing individuals in a kind of timeless past. That is not to say that there has been no debate about the choice of appropriate timescale, parallel to the ongoing concerns of historians. Three examples suffice to illustrate this. One favours even more attention to the very short-term experience of life, another argues for a focus beyond the experience of single lifetimes, while the third opts for varying perspectives dependent on the quality and nature of the available evidence. What we ourselves advocate does not map neatly on to any of these three.

In a paper called ‘Eleven Minutes and Forty Seconds in the Neolithic’, Douglass Bailey and Melanie Simpkin (2015) set a radical challenge to whether we work at the appropriate timescale. Despite improved excavation techniques and refined dating (this is not specified in detail) of an early Neolithic context at Măgura in southern Romania, “no increase in our efforts would get us any closer to the time of the prehistoric people we sought” (D. Bailey and Simpkin 2015: 190). Their hypothesis is that life and change occur in ‘real time’, by implication a very slow time, which is reduced or compressed through ‘chronotypic fabrication’, fudging reality; though we “talk grandly about agency, intention, belief, mentality and the individual”, we miss out the scale of lived action (D. Bailey and Simpkin 2015: 190). Their response was to try to imagine the flow of existence, “the slow, almost static pace of daily life”, in this instance by filming what happens on the outskirts of a modern Romanian village, and dissecting, using notation usually employed in dance choreography, the rhythms and directions of people on the move about their daily business.

By way of contrast, in *The Early Mediterranean Village*, John Robb (2007: 3) has urged that we look beyond the temptation to create a kind of ethnographic present, and look at “how humans make their history on a scale beyond experience of a single lifetime”. Explanation of long-term change is seen as a major gap in recent archaeological theory (Robb 2007: 287). For the Italian Neolithic, this results in a model “for observing the historical workings of practice” at “neither the span of decades nor of millennia, but on the order of a few centuries” (Robb 2007: 294). That leads to a narrative in which the chronological currency still consists of big units, such as the Early, Middle, Late and Final Neolithic, and the Copper Age, with generalized periods such as “earlier sixth millennium to later fifth millennium”, and so on (Robb 2007: 337). There is little here on the tempo of change, and more emphasis on stability

(Robb 2007: 338), though there is important discussion of historical trajectory within an envelope of possibilities (Robb 2007: fig. 58).

In another account, John Robb and Tim Pauketat (2013: fig. 1.1) set out what is probably the most detailed and explicit multi-scalar perspective so far. A series of scales are envisaged, from the broad and long setting of particular cultural worlds, to recurrent ways of doing things (traditions, institutions and practices), to historical landscapes (“local bundles of mutually reinforcing institutions and practices”), to local political histories and cycles, and finally tipping points and rapid general transitions. Here then is much more differentiation and much more potential tempo; local histories and cycles are seen to go at quite a pace, and tipping points can be “moments of rapid transformation” (Robb and Pauketat 2013: 25). Cultural worlds can last for over a millennium, and the duration of historical landscapes is seen as spanning a few centuries. Importantly, this multi-scalar view advocates “the idea of history as multiple genealogies of practices and the vision of history as a palimpsest of qualitatively different processes” (Robb and Pauketat 2013: 26).

‘Time perspectivism’ has not generally caught on in archaeology (Murray 2008: 175), though it is commonplace in biology and other disciplines (Behrensmeyer and Schindel 1983), but it has been the most explicit attempt to worry about the choice of scales, and as such deserves careful consideration. Its leading advocate has been Geoff Bailey (most recently 2007, 2008). His basic argument is first, that “changes in the time scale at which we make observations change what we see”, and second, that the archaeological record is a palimpsest, of “variable but generally coarse resolution” (G. Bailey 2008: 13); palimpsest is seen as “a superimposition of successive activities, the material traces of which are partially destroyed or reworked” (G. Bailey 2007: 203). Following from this, although multi-scalar accounts can be envisaged (G. Bailey 2008: 24, 26), the possibility is asserted of seeing in the long term “a pattern and an order of reality not available on shorter time scales” (G. Bailey 2008: 17); many archaeologists are seen as wanting to investigate individuals and to write narratives of lived, experienced time, but with data that are insufficient for the task (G. Bailey 2008: 22, 27). ‘Moments in time’, like the death of the Ice Man, are argued to be very rare (G. Bailey 2008: 22), and while the increased number of radiocarbon dates and improvements in dating in general are very briefly acknowledged, they are seen paradoxically as an obstacle, because of diverting “attention away from the analysis of things in themselves and especially away from the different temporalities that are inherent in different sorts of palimpsests” (G. Bailey 2008: 25).

Long-term processes of erosion and landscape denudation in north-west Greece are seen as cumulative palimpsests, but visible through large-scale comparison, despite the coarse resolution of the data (G. Bailey 2007: 210–212).

In contrast, the floors of Neolithic houses are seen as true palimpsests, since they are regularly swept clean, with perhaps only small items remaining trodden in; only the final surface would survive for investigation, and might give a misleading impression of the use of the house as a whole (G. Bailey 2007: 203–204). So in following a “microscopic tendency” (G. Bailey 2007: 209), we are guilty of trying to be inappropriately ethnographic with the Neolithic, and instead it is argued that we should “abandon most of the conventional foundations of existing archaeological thinking” (G. Bailey 2008: 28), in order to “clarify what sorts of theories and questions work best with the structural properties of different sorts of material records at different scales of observation” (G. Bailey 2008: 29).

There are things to worry about in all three of these positions. We can certainly imagine the flow of daily life, and certain deposits may provide freeze-frames of this, but routinely it is not possible to have this as our central focus. While in some circumstances and for some themes we may wish to look at things over longer timescales (“beyond the experience of single lifetime”; in the end, it is argued by Robb and Pauketat (2013: 31) that what really matter are the big histories of large narratives), it now seems self-defeating to throw away the opportunity to investigate down to the scale of lifetimes and generations. We would certainly endorse a multi-scalar perspective, and to that extent we too could be classed as ‘time perspectivists’. But what is frustrating in time perspectivism is the very simple contrast drawn between the worked examples and the imbalance in their treatment, and the very stark opposition between macroscopic and microscopic scales. Examples from Palaeolithic landscapes in Greece are contrasted with a single, idealized scenario for Neolithic house floors, which lacks sequence, context or any kind of possible variation. What is missing is time of the middling sort – of human generations and lifetimes – which can be revealed with the kind of precision which can now be attempted, for example, for the biographies of Neolithic houses in Europe (see [Box 8.2](#)) or, even more ambitiously, for particular decades within a given century (see [Box 8.1](#)).

Box 8.1 A week walking across Wessex in the 3630s cal BCE

Excavations in Wessex ([Figure 8.1](#)) going back now almost a century have created a rich (though far from perfect) archive, which has been exploited to create some of the most detailed formal chronologies so far available in Neolithic archaeology (Bayliss and Whittle 2007; Whittle *et*

al. 2011). From those, we have chosen the 3630s cal BCE to indicate the resolution now possible from concerted dating and modelling at a regional scale (Figure 8.2). We present this in the form of a walk, lasting perhaps a week or more from north to south, depending on the availability of paths, the speed of the traveller and the number of diversions and interactions along the way. It is up to the reader to imagine whether this was the journey of a time traveller, like John Lubbock in *After the Ice* (Mithen 2003), or the march of a Neolithic individual with a specific mission in mind, such as the exchange of stone axes. The later part of the 37th century cal BCE has often been subsumed in wider and more general accounts of the first centuries of the Neolithic in southern Britain, a world of probably still dispersed and partly shifting or short-term settlement, limited clearance of primary woodland, and the construction of long barrows and causewayed enclosures. There is no need to let go of this bigger picture, but our walk aims to underline the opportunity to reveal specific circumstances in precise times, and thereby to open up differing scales of analysis, in the creation of varying narratives.

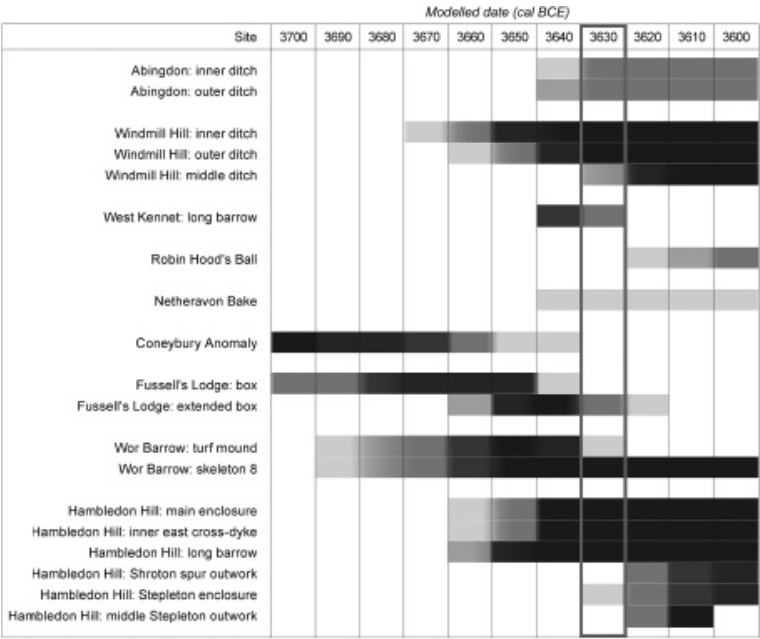


Figure 8.2 Schematic diagram showing the periods over which different activities in Neolithic Wessex occurred during the 37th century cal BCE. The shading derives from the models defined by Allen *et al.* (2016: fig. 12a (Wor Barrow)), Barclay *et al.* (Forthcoming: fig. 5 (Coneybury Anomaly)), Bayliss *et al.* (2007: fig. 6 (West Kennet)), Whittle *et al.* (2011: figs 3.9–11 (Windmill Hill); figs 4.7–13 (Hambledon Hill); fig. 4.51 (Robin Hood's Ball and Netheravon Bake), figs 8.18–21 (Abingdon)) and Wysocki *et al.* (2007: figs 9–11 (Fussell's Lodge)).

If our traveller set off from the north-eastern edge of the downs (Figure 8.3), the view over the shoulder back down on to the upper Thames valley probably included the Abingdon causewayed enclosure in the distance, and the immediate surroundings could have encompassed clearance and small-scale occupation (Whittle *et al.* 2007). Under 20 miles to the south-west, there awaited the arresting sight of the white rings of the Windmill Hill causewayed enclosure, whose inner and then outer circuits had already been constructed, in circumstances still talked about by the elderly of the district; our walker would have seen the process of completing of the layout of the enclosure, with the building of the middle circuit, those responsible probably the grandchildren of the first builders. Not far away, the traveller would have met elderly mourners at the last funeral in the West Kennet long barrow, who could have been related to the architect of this monument.

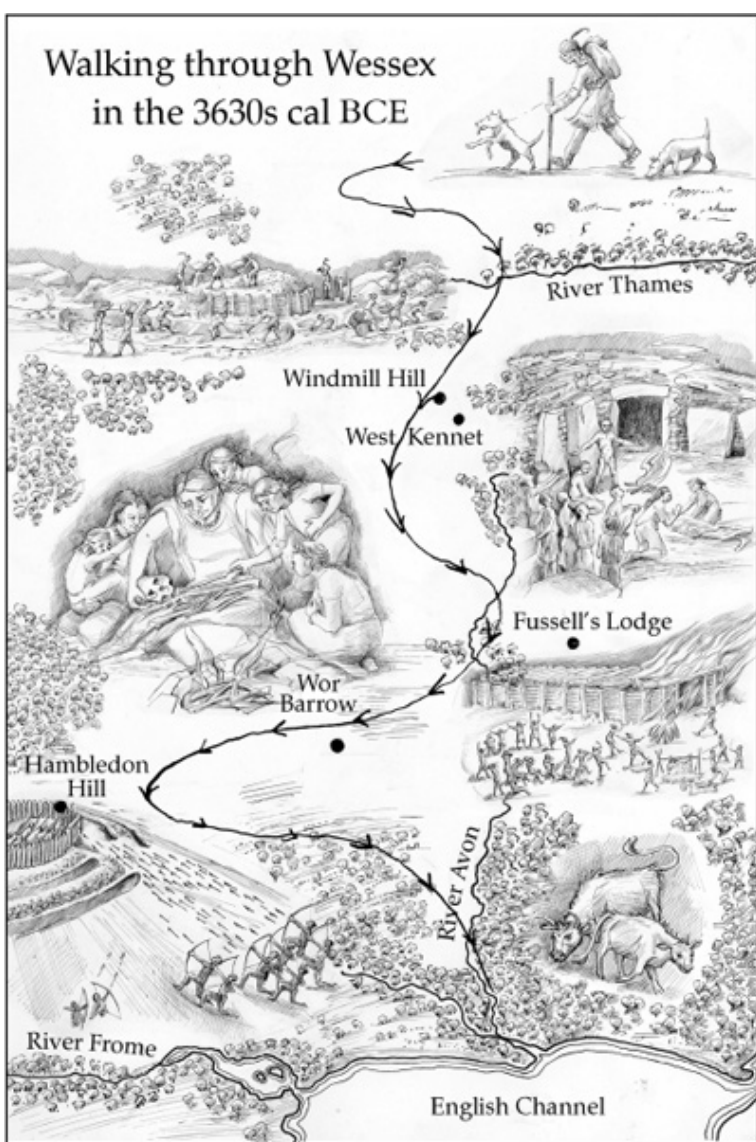


Figure 8.3 Figurative map showing the location of sites mentioned in the description of a walk across Wessex in the 3630s cal BCE.

Source: Illustration by Judith Dobie.

Another 16 miles southward, including across the probably still heavily wooded Vale of Pewsey, the landscape was less busy, although more construction activity may have come into view, perhaps in the form of the digging of the ditches flanking the Netheravon Bake long barrow and the piling up of its mound. Here there could have been talk of plans for a new enclosure at Robin Hood's Ball. Taking care not to

break an ankle in the already disused and silting Coneybury Anomaly pit, the individual moves on another 14 miles to the south-east, crossing the Avon, to reach a site where further work was underway. This was the Fussell's Lodge long barrow, but at the stage when the existing mortuary structure, with its accumulated human remains, within its trapezoidal wooden revetment, was spectacularly burnt; perhaps our traveller could have enjoyed the spectacle and the accompanying feasting, but moved swiftly on before becoming enmeshed in the labour of ditch digging and mound piling to complete the monument.

Tracking then another 17 miles to the south-west into Cranborne Chase, perhaps in part through a naturally less wooded landscape, would have presented the walker with the sight of another ongoing construction, in this case that at Wor Barrow. Here there was a probably freshly raised turf mound over a mortuary enclosure with its primary burials. Our traveller could well have been much puzzled here, unless familiar already with local custom. Why was Skeleton 8 being curated in a tightly wrapped bundle, though he had been previously shot in the chest by an arrow? Was he related to one of the occupants of the mortuary deposit, perhaps someone special or unusual like the man (Burial 3) with multiple congenital disorders? (Allen *et al.* 2016: 22).

Such questions could have helped to pass the last 12 miles of the trip, to the great causewayed enclosure of Hambledon Hill (Mercer and Healy 2008). Already started several decades earlier, with construction of the main enclosure, the inner east cross-dyke and the long barrow, this complex too probably witnessed further activity in the 3630s cal BCE. Plenty of labour was planned for building the Stepleton enclosure and the middle Stepleton outwork, although work had hardly advanced beyond marking out the layout. But, depending on the moment of arrival, our witness could have also seen the smouldering wreck of the newly built, and almost immediately destroyed, Shroton spur outwork.

A chronicle of such a journey is not the same as an interpretive narrative. That requires the asking of wider questions. Why were enclosures and funerals so popular at this time and how were they linked? What conditioned the bigger, rolling undertaking on Hambledon Hill, compared to the burst of initial construction on Windmill Hill? Why were funerals at long barrows both so familiar in general but each different in its own way at individual sites? We have attempted some provisional responses elsewhere (Bayliss and Whittle 2007; Whittle *et al.* 2011: [chs. 14](#) and [15](#)). The more precisely we can define sequence and co-presence on a lifetime, generational and even decadal scale, the better our answers can become.

The shared challenge of incomplete evidence

A second link between history and archaeology is the shared challenge of incomplete evidence. Of course the disciplines can be separated by the possession or not of written evidence, but it is open to question whether that is as decisive a criterion as often mooted, if the creation of narrative is the goal of both. It is worth remembering how uneven the written record can be, not just for the mediaeval or earlier periods, as well as how it always demands interpretation (Arnold 2008: 23–56). Our knowledge of the so-called great cat massacre (an exemplar for microhistory: Darnton 1984) rests on a single, three-page pamphlet, written some 30 years after the alleged events (Evans 1997: 247). The written record covering the life of Elizabeth Marsh is likewise partial and in places fractured (Colley 2007: xxix–xxx, 137). This is not to deny the unquestionably greater detail which the written record can provide. The historian Mark Mazower (2005: 303) recounts, for example, the numbers of people belonging to different ethnic and other groupings concentrated in the city of Salonika in 1913, in the unsettled conditions following the First Balkan War: just under 40,000 Greeks, 45,867 ‘Ottomans’ or Muslims, and 61,439 Jews, making a total population of 157,889. These numbers are known because of a census organized by the civilian governor-general of Macedonia. Estimating population numbers in prehistory remains notoriously difficult. In recent times either the subject has been avoided or reliance has been placed on the doubtful proxy of the numbers of available radiocarbon dates (Shennan *et al.* 2013). In our own recent project, *The Times of Their Lives*, it has proved possible, however, to offer more direct and more precise estimates for the major Lengyel culture aggregation at the site of Alsónyék-Bátaszék in the earlier fifth millennium cal BCE (Bánffy *et al.* 2016; and see [Box 8.3](#) here). Though its story is far more uncertain than that of early 20th-century Salonika, it is now possible to use both in the construction of detailed narratives.

Box 8.2 House durations in the European Neolithic

Houses and households were central features of dwelling in many places and at many times in Neolithic Europe. They were surely a fundamental constituent of how settlements operated, providing variously a place of residence, membership of a set of people, a focus for allegiance, continuity and descent, and a medium for social relations within and beyond the immediate community. Our understanding of the extent of diversity in all these arrangements, however, and of change through

time, is limited. We badly need robust and more precise estimates of how long houses lasted, as that should give many insights into the character of life on the ground, including the durability or fragility of household groupings.

Figure 8.4 shows formal estimates for the durations of a selection of Neolithic houses, which range in date from the last quarter of the 53rd century cal BCE (Versend; Jakucs *et al.* 2016: fig. 8.5) to the second quarter of the 29th century cal BCE (Barnhouse; Richards *et al.* 2016: fig. 8.6) and in space from central Serbia (Vinča-Belo Brdo) to Orkney (Barnhouse) (Figure 8.1). These estimates of duration relate to a variety of architectural forms, although the majority are rectangular timber constructions ultimately derived from the Danubian tradition (Figure 8.5).

The estimates of duration have been derived using a number of scientific dating approaches. At Hornstaad-Hörnle IA dendrochronology has provided estimates that are precise to the year when the timbers used in the construction of no fewer than 67 timber houses were felled (Billamboz 2006). Combining these groups of tree-ring dates from buildings with the stratigraphy of the site allows similarly precise estimates of the duration of the use of each house to be made. None was in use for more than a decade, and some were destroyed within a year of their erection.

The settlement at Hornstaad-Hörnle IA was burnt down in 3910 BCE, a mere seven years after the first timber was felled for its construction. Although there was some rebuilding after the fire, overall the settlement appears to have been occupied for little more than 15 years. Such brevity might reflect happenstance, if it were not reflected elsewhere. Beyond the dendrochronologies of the Alpine foreland, at Versend-Gilencsa, almost exactly 1,200 years earlier, a picture again emerges of houses that are used for a few years (e.g. H11, H12) or a decade or two at most (e.g. H7).

Versend-Gilencsa was a flat settlement with limited vertical stratigraphy, circumstances which mean it is rare to be able to provide such precise dating using Bayesian chronological modelling of radiocarbon dates. But, given sufficient rigour in the excavation and recording of stratigraphy and careful selection of short-life samples for radiocarbon dating from primary contexts, such chronologies can and, in future, should be produced for all settlements that formed tells. Examples from Vinča-Belo Brdo and Uivar reinforce the conclusion that the *courte durée* of the Alpine foreland was not entirely driven by the perils of life on a lake edge. Settlement and households could be very dynamic,

without being mobile or nomadic. Many Neolithic adults would have lived in more than one house over their lifetime. But the tells also show more variability, with a number of structures remaining in use for several decades, although durations of more than half a century seem to be exceptional.

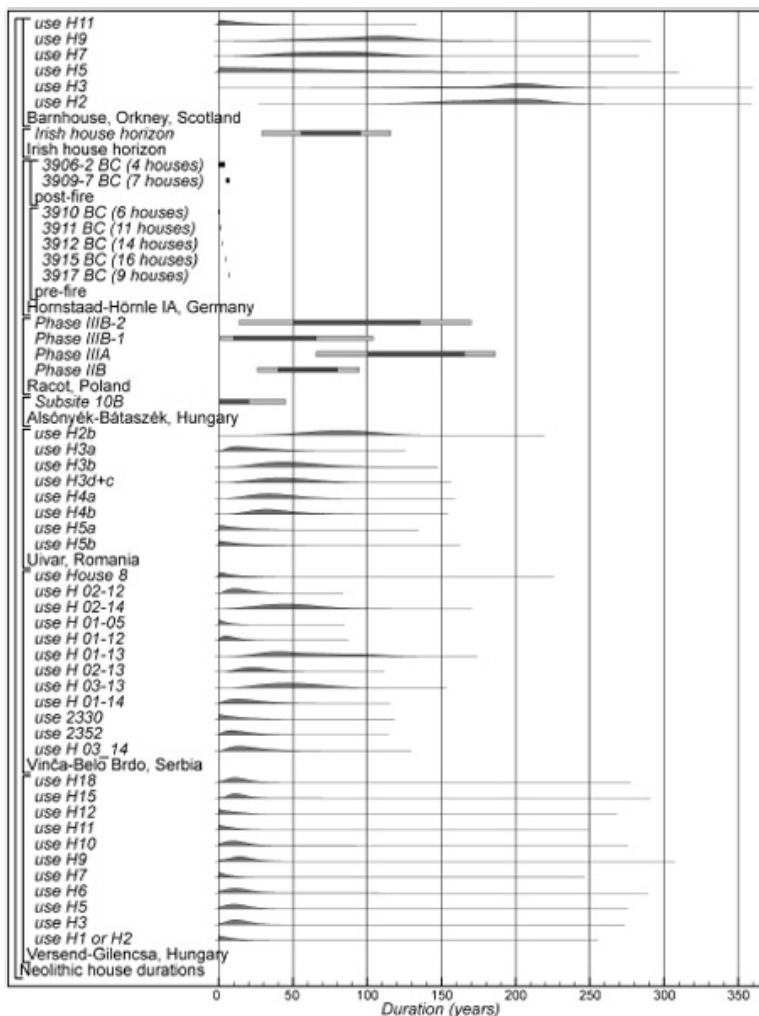


Figure 8.4 Formal estimates for the durations of a selection of Neolithic houses in Europe. Black: posterior density estimates from Bayesian chronological models (Versend: Jakucs *et al.* 2016: fig. 5; Vinča-Belo Brdo: Tasić *et al.* 2015: fig. 8; 2016, figs 3–8; Uivar: Schier *et al.* in prep.: figs 6.9 and 6.12–16.22; Barnhouse: Richards *et al.* 2016: figs 6–8). Grey bars: highest posterior density intervals from Bayesian chronological models for archaeological phases from which house durations can be indirectly inferred (Alsónyék-Bátaszék: Osztás *et al.* 2016: fig. 19; Racot: Czerniak *et al.* 2016: fig. 7; Irish house horizon: Whittle *et al.* 2011: figs 12.22–27). Black bars: tree-ring dating (Hornstaad-Hörnle IA: Billamboz 2006).

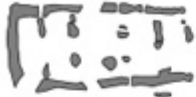
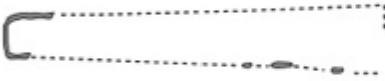
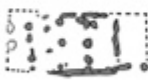
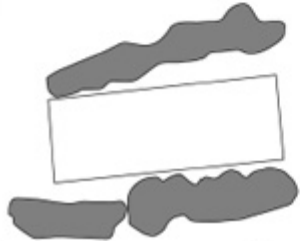
	Barnhouse
	Tankardstown South
	Hornstaad-Hörnle 1A
	Racot IIIB-2
	Racot IIIB
	Alsónyék
	Uivar
	Vinča
	Versend
	

Figure 8.5 Typical plans for the houses whose probable durations are illustrated in Figure 8.4

Sources: Richards *et al.* 2016; Smyth 2014; Billamboz 2006; Czerniak *et al.* 2016; Osztás *et al.* 2016; Wolfram Schier and Florin Draşoveanu; Vasić 1932; Jakucs *et al.* 2018.

Away from tells, often it is not possible to date the duration of individual houses precisely, but rather house duration must be inferred from the period when a particular site, or form of structure, or ceramic tradition was in use. The settlement in sub-site 10B at Alsónyék-Bátaszék endured for only a few decades (see [Box 8.3](#)), meaning that its houses

can only have been occupied for a similarly restricted period. Early Neolithic timber houses in Ireland occur for only a few generations in the 37th century cal BCE and with one possible exception their plans are never superimposed (Smyth 2014: 25–26), and so this currency provides a maximum duration for any individual house. At Racot the substantial long houses can be associated with a series of pottery styles, and house durations appear to range from a few decades (evidenced by successive houses within Ceramic Phase IIB) to a century or more (Phase IIIB-2; Czerniak *et al.* 2016: 12–13).

Barnhouse stands in contrast to the sites so far discussed. Bayesian chronological modelling combining radiocarbon dates with the site stratigraphy suggests very variable house durations, ranging from a decade or two (House 11) to around 200 years (Houses 2 and 3). These structures are sub-circular and constructed from stone, not timber. Dating a century or so on either side of 3000 cal BCE (Richards *et al.* 2016: [fig. 8.6](#)), they are also substantially later than the other houses considered here. Perhaps the more enduring architecture at Barnhouse reflects not simply the building material available, but also the character of the household which occupied the building. It may be no coincidence that it is after about 3000 BCE too that longer-lasting settlements join the mix of short-lived occupations in the Alpine foreland (Ebersbach 2013: 294).

Particularization and the generation of knowledge

The third potential link between history and archaeology lies in attitudes to the generation of knowledge. The historian John Lewis Gaddis (2002: 62–66, 69–71, 89, 108) has argued that history can better be aligned with certain of what he calls the natural sciences (astronomy, geology, palaeontology, evolutionary biology and medicine are specifically cited) than the social sciences, in that historians work with particular generalizations, embedded within narratives, rather than embed narratives within generalizations, like social scientists. A majority of interpretive approaches in archaeology, at least since the days of processual archaeology, have tended to be dominated by the social science model. Sets of ideas frequently come from a mix of sources in anthropology and social theory. In recent times, one can think of a long list which includes *habitus*, agency, practice, memory, personhood, the body, house societies, and most recently relational ontology and the turn to things. Over and over again prehistorians have tended to start with big ideas of this kind, using them as a fixed or at least definable point of reference with which to approach remote

past which lack written records. Researchers have to start somewhere – and for ourselves the idea of human agency is central – but they run the risk of having made sense of things before they have started, or of making sense of every situation in more or less the same way. This same tension has existed in anthropology as well (Moore 1999: note 1, 19–20), though it has been claimed that “the Holy Grail of grand Theory” has now changed to a “softer theoreticism”, concerned with practice on the ground (Knauff 2006: 413).

Archaeology could and should more explicitly align itself with history and those other disciplines for which particularization is of central importance, and the construction and interpretation of narrative can play a key role in this reorientation. It is not in fact a completely new strand. *What Happened in History* was one of Gordon Childe’s (1942) most striking titles, and the book begins with a chapter boldly called ‘Archaeology and History’. Disappointingly, however, apart from a spirited attack in the very first sentence on the incompleteness of written history, there is virtually no theory here; instead the chapter serves as a general outline of human development within a very broad chronology for prehistory. In more recent times, the theme of the link between history and archaeology has come back from time to time, without perhaps ever being sufficiently well established or accepted widely enough to become mainstream. In a paper of 1970, at a time when debate was intense about new or processual archaeology, Bruce Trigger made a strong case for prehistoric archaeology as a historical discipline, not just descriptive but fully open to interpretation like the best of then contemporary historians such as Carr and Elton; this ‘idiographic’ approach was counter to the ‘nomothetic’ generalizing of social science and processual archaeology in the shape of Binford and Clarke (Trigger 1970: 30–31). Presciently, he noted that a growing number of historians were “willing to regard themselves as scientists” (Trigger 1970: 31). But while explicitly claiming archaeology as history, he also warned strongly against “unwarranted speculations in a desperate attempt to produce something resembling narrative history” (Trigger 1970: 31). Typically enough for an article of this kind, there was no sustained case study. Trigger’s own detailed work on the Huron and the Iroquois Confederacy, *The Children of Aataentsic* (1976), gives a good idea of the kind of richly documented history he went on to write, but the narratives there rely much more on historical sources than archaeological evidence. Nor was the 1970 paper much commented on, either in the pages of *Antiquity* where it had been published, or in the subsequent big conferences of the time. Other papers followed (Trigger 1982, 1984, 1989) but never became part of mainstream views, though they were noted by Tim Pauketat (2001: 73). Perhaps this was in part because of their more general tone. One cites Childe and Marx in the context of discussion of historical knowledge as an understanding of “how and why

specific societies developed as they did” (Trigger 1984: 289), but does not go further into the detail of historical writing, as in the earlier paper.

Others have followed on the same kind of path (e.g. Hodder 1987; Hodder and Cessford 2004; Hodder and Pels 2010; Sherratt 1995), though there is not space here to go into all the detail. One more recent example will suffice in this context. Historical explanations have been promoted in connection with practice theory or ‘historical processualism’ (Pauketat 2001, 2007). This has been part of a move to turn away from the generalizing approaches of processualism. “Today, history matters in archaeology” (Pauketat 2001: 74). This has been closely linked to a theory of practice, practices being seen as generative processes of change, and based on ideas of agency and *habitus*, founded on Bourdieu and Giddens (Pauketat 2001: 74, 79). Case studies of the wider Mississippian phenomenon recognize varying timescales, from the ‘event’ of the emergence of Cahokia, occurring “within a short period of years” (Pauketat 2001: 83) to the possibility of ‘microhistories’ of cultural practices at household level (Pauketat 2007: 210). Pauketat asserts (2001: 86) that “history is not a succession of cultural structures, institutions, or elite dynasties, and historical processes are not the abstract transitions or freak events between structures, institutions and organizations”, but rather “the process of cultural construction through practice” (2001: 87). The preference in this kind of history is clearly for the locus of the generation of change through practice, “in microscale actions and presentations” (Pauketat 2001: 87).

Later accounts by Tim Pauketat have become more complicated, because the agency of people is joined by the agency of things, in notions of bundling (Pauketat 2013). This can serve here as one example of the wider – and rather diverse – ontological turn. History remains very much the goal, “but not just human history” and involving more than narratives of human intentionality (Pauketat 2013: 190). Much of this is based on the analogy of Plains practice and the reverence accorded to sacred bundles of objects, in both individual and group ownership (Pauketat 2013: [ch. 3](#)). The view now is that “agency is always partial and distributed or dispersed among people and other non-human beings, objects, places or entities” (Pauketat 2013: 30). But while not denying that bundles in the Plains context were extremely important, their independent agentic power can be exaggerated. After all, it seems clear that while they influenced many decisions, they could also themselves frequently be part of transactions between the varying human parties involved, for example in inheritance or intergenerational and other transfers of ownership (Flannery and Marcus 2012: 175; Zedeño 2008). So far, we are left once again with a starting generalization – for example, “the bundles that mediate relationships and the agencies implicated are always in motion ... to bundle is to repeatedly concentrate agentic power from here to there along the experiential pathways

of life” (Pauketat 2013: 41) – rather than detailed narratives of the growth, development and eventual decline of particular practices in the Plains or other historical and cultural contexts. Other recent proposals for the future direction of archaeological interpretation (e.g. Lucas 2015; Gosden and Malafouris 2015) also avoid the details of achieving chronological precision in their enthusiasm for generalizing notions such as contemporaneity as a relation between objects (Lucas 2015: 6–7) and human history as “made up of streams of material and streams of people” (Gosden and Malafouris 2015: 711).

Box 8.3 The rise and fall of Neolithic Alsónyék: the tempo and intensity of a major aggregation

The site of Alsónyék-Bátaszék in south-west Hungary is remarkable in two ways. First, it has a very long sequence of Neolithic occupation, from c. 5750 cal BCE to c. 4300 cal BCE. That encompasses the succession of the Starčevo, Linearbandkeramik (LBK), Sopot and Lengyel periods, spread horizontally over wide areas of the site, and without formation of deep stratigraphy. Such persistence of place without tell formation is, on the basis of present knowledge, unprecedented in the Hungarian Neolithic. Second, the Lengyel occupation, including houses, pits and graves, is of unparalleled size, reaching a possible extent of some 80 ha, perhaps larger by a factor of two or three than any other known Lengyel site in Hungary.

It was investigated during archaeological excavations preceding the construction of the M6 motorway between 2006 and 2009. A roughly cross-shaped area, c. 25 ha in extent, and a smaller linear area, approximately 500 m to the east, were excavated (Bánffy *et al.* 2016: [fig. 8.4](#)), revealing more than 10,000 Neolithic features. The scale of these excavations, accompanied by extensive geophysical survey, has enabled an estimate of the extent and number of features in the settlement of each period to be made (Bánffy *et al.* 2016: table 3). In addition, 296 radiocarbon measurements, combined with information from archaeological stratigraphy and finds, have allowed a detailed understanding of the chronology of different elements of the site to be established through a series of Bayesian chronological models.

Spreading the number of features in each settlement across the time when it was used allows an estimate of the intensity of occupation of this persistent place across the generations to be obtained ([Figure 8.6](#)). This analysis clearly shows an extraordinary intensification of activity at

Alsónyék at the start of the Lengyel period. The number of features increases from c. 150 in the generation before 4800 cal BCE to c. 7,600 in the generation before 4700 cal BCE. This is something like a 50-fold increase. And this intensification happened very quickly – within the space of the generation or two who lived in the middle of the 48th century cal BCE. Such intensification was not sustained and, by the generation before 4600 cal BCE, the number of features had reduced to c. 600. This represents something like a 12-fold decrease from the peak of activity a century before, but still indicates occupation four times more intense than any that had occurred at Alsónyék before the Lengyel period. The peak of activity at Alsónyék was perhaps sustained for only a generation or two, and the decline was perhaps only slightly slower than its rise (covering two or three generations in the latter part of the 47th century cal BCE). Activity did not reduce to its pre-Lengyel levels, however, until c. 4300 cal BCE.

Zooming into the Lengyel settlement, the combination of the extensive field investigations with precise chronologies for different elements of the site allows the character of the agglomerated settlement to be investigated in more detail.

First, we estimate the changing population of the settlement through time. Approximately 2,300 Lengyel burials have been excavated, although children are disproportionately missing from this sample (only c. 23%, whereas a figure closer to 40% would be expected). The number of adult deaths from each sector of the Lengyel settlement is estimated by increasing the number of adult skeletons recovered in proportion to the estimated unexcavated area of the sector (Bánffy *et al.* 2016: table 4). These deaths are then proportioned across the normalized probability distributions for the presence of the cemetery in each sector in each generation to provide an estimate of the number of adult deaths in the settlement through time (Bánffy *et al.* 2016: table 5 and fig. 8.8). We then multiply the estimated total number of adult deaths in each generation by 40% to account for the children, and calculate the population over time using a mortality rate derived from historical accounts of pre-industrial populations of 40 deaths per annum per 1,000 population (Acsádi and Nemeskéri 1970). This method provides estimates of the population of the Lengyel settlement through time (Figure 8.7).

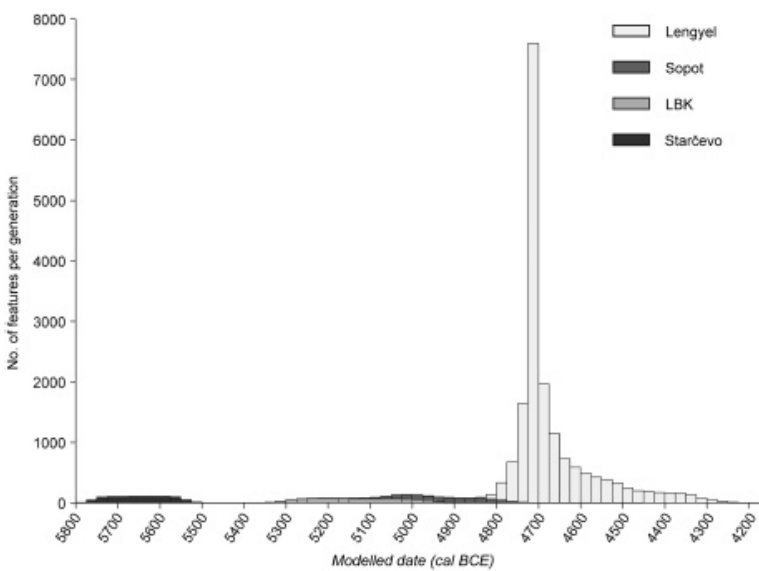


Figure 8.6 Number of features per generation at Alsónyék-Bátaszék, calculated from the normalized probability distributions for the use of each phase of settlement (derived from the models defined in Oross *et al.* 2016a: fig. 6; Oross *et al.* 2016b: fig. 7; Oross *et al.* 2016c: fig. 6; and Oszttás *et al.* 2016: figs 12–13, 15–16 and 18–19)) and the estimates of settlement area and feature numbers provided in Bánffy *et al.* 2016: table 3)

Second, we estimate the number of timber houses that were in use over time. Traces of 120 houses were recovered (with 294 estimated to lie in unexcavated areas of the settlement). Using the median duration of Neolithic houses in south-east Europe (25 years; see Box 8.2), we can distribute these houses proportionately across the normalized probability distributions for the presence of the cemetery in each sector in each generation (Figure 8.7). This suggests that the settlement consisted of c. 210 houses in the generation before 4700 cal BCE, reducing to less than ten houses in the generation before 4500 cal BCE.

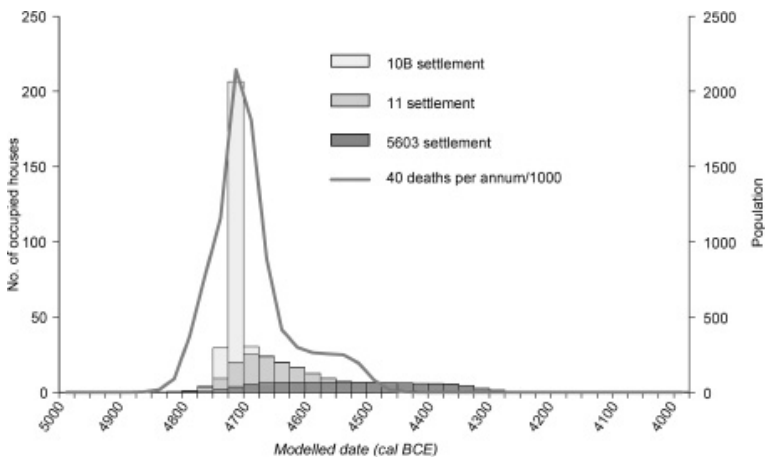


Figure 8.7 Estimated number of houses inhabited in different subsites of the Lengyel settlement at Alsónyék-Bátaszék (25-year house duration), and estimated population (following Method 1, upper range of normal mortality)

These calculations allow us to consider how many people inhabited each house. Using the population estimate shown in [Figure 8.7](#), this gives us a total household size of between 10 and 18 (including four to eight children). This can be compared with a cross-cultural anthropological estimate suggested by (Naroll 1962) where household size is approximately one-tenth of the floor area of a house. The average floor area of a Lengyel house at Alsónyék was 126 m², and so this method would suggest an average household of 12–13 individuals.

Conclusions

If we agree once again with the Annaliste Lucien Febvre (1973: 35) that, as he trenchantly put it, “the concept of prehistory is one of the most ridiculous that can be imagined”, it still remains to show how alternative conceptions of the nature of archaeology can be figured, and to establish alternative approaches routinely in the discipline. We have argued here that the increasing ability to write more and more detailed narratives of the remote, Neolithic past, with fine and robust chronological resolution, enables a realignment of archaeology with the broad and varied practices of history, with a wide choice of scales now open in both history and archaeology. That is underpinned by the shared challenge of inevitably incomplete evidence, which we believe is a more profitable starting point for the interpretation of sequence and the creation of narrative, rather than the alternative of simply underlining the presence or absence of written records. We have also argued here, following Gaddis (2002), that an archaeology framed by detailed, rigorously constructed narratives could and should be realigned with the particularization of history, and can now begin to wean itself from its long-dominant reliance on generalization.

The proof of the pudding is in the reading. We have used three case studies briefly to indicate the scope of what is now possible. From more precise timing can come all manner of insights into contemporary human agency, as we have illustrated from central-southern England in the 3630s cal BCE ([Box 8.1](#)). Finer chronological resolution also enables much more specific comparison of durations, as we have shown in the study of house lives in varying contexts across Neolithic Europe ([Box 8.2](#)). More robust time control sets up the opportunity to examine the tempo of change, sketched here in the case of the major aggregation of Alsónyék, especially in the generations around 4700 cal

BCE (Box 8.3). It is easy to be impatient that there are not yet more case studies of comparable resolution, such that detailed narratives at varying scales could be constructed right across the span of European ‘pre’-history, but time will tell if future generations of researchers can set that right, along the paths set out here.

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Concepts of time and history on Chalcolithic tell settlements and Trypillia mega-sites

John Chapman and Bisserka Gaydarska

Introduction

The settlement of Old Europe¹ (Figure 9.1) in the Neolithic and Chalcolithic comprised a long and complex series of processes (Chapman in preparation). By the late fifth millennium BCE, two contrasting planning principles underlying the form of many settlements had emerged – the grid plan, best exemplified by the completely excavated tells of North-East Bulgaria (Todorova 1982), and the concentric plan, amply demonstrated by the Trypillia sites and mega-sites of southern Ukraine (Videiko 2012; Müller *et al.* 2016). In this chapter, we wish to draw some basic contrasts between the social practices materialized on grid-plan sites and concentric sites, as a way of responding to Yi-Fu Tuan’s stimulating question: “What time is this place?” His question links place to time in the most direct of ways, forcing us to confront the ways in which history is built into the practices of each person in the household as well as the meanings of those archaeological remains we infer to signify ‘settlements’ (i.e. buildings and objects). This question leads us into further enquiries about houses, ancestry and long- or short-term identities. The multiplicity of answers to this question depends initially upon the kinds of time and place in question.

The Einsteinian revolution in relativity provided a comprehensive re-definition of time and space by joining the two in an inextricable relationship of time-space – one where either could only be defined in relation to the other rather than in any absolute way. While the impact on other disciplines was enormous, the effects of Einstein’s breakthrough remained minor in archaeology, general reviews of time and archaeology notwithstanding (Bailey

1983; Karlsson 2001; for an exception, see Bayliss and Whittle 2015). We suggest that the main impact for archaeologists is that it makes settlements and especially dwelling houses the key places for the grounding of a time–place relative framework. That is to say, if lived time as experienced by people in their quotidian lives made a telling contribution to the time–place framework, then the places where this happened more than anywhere else were settlements. It is suggested that the time–place relationship may have been constituted in different ways at the places of public monuments, constructing temporalities that needed to be related to dwelling-time (Crossland, and Bayliss and Whittle, this volume).

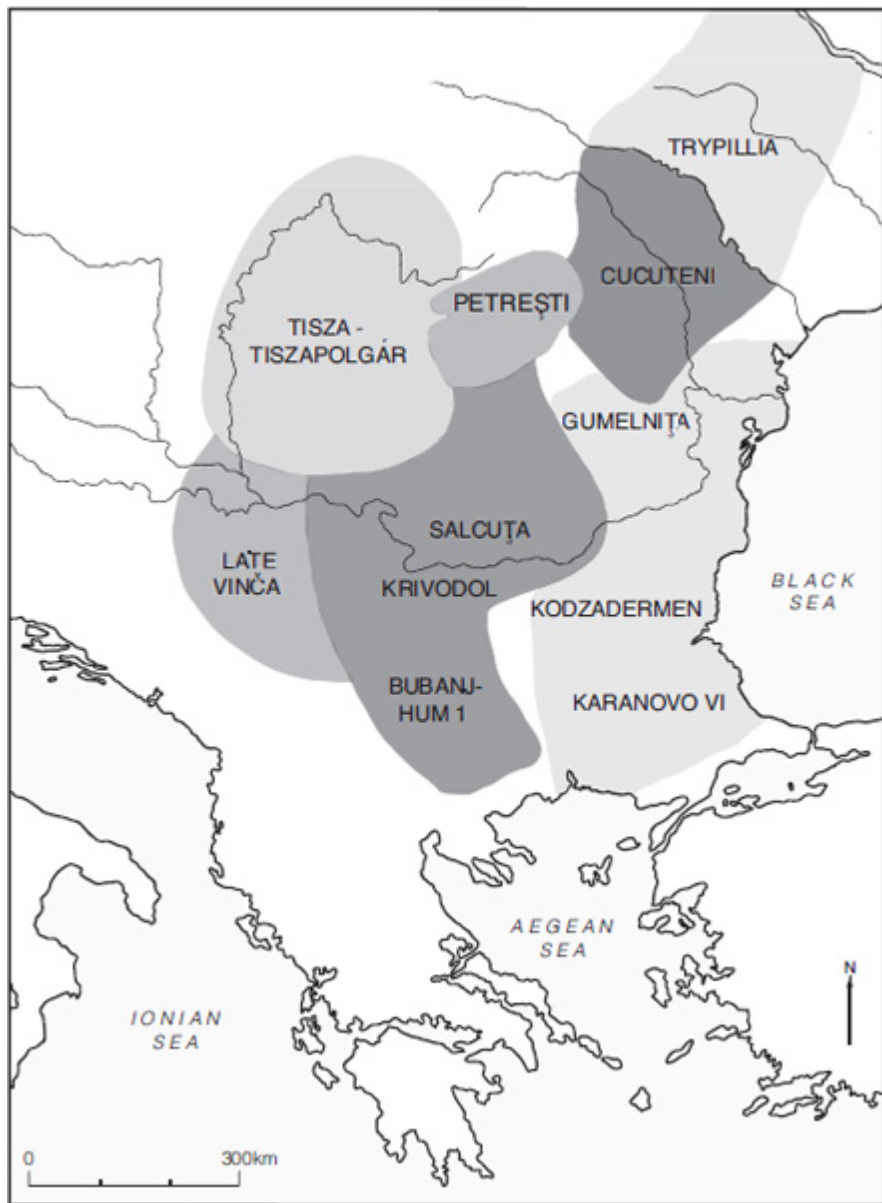


Figure 9.1 Map of Old Europe in the 5th–4th millennia BCE: Trypillia–Cucuteni – flat site zone; all other groups – mixed tells and flat sites

The Einsteinian concept of time–space is thus directly related to – indeed, gives rise to – Tuan’s question, “What time is this place?” The basis for our answer to Tuan’s question concerns settlement and house sequences – two forms of archaeological biographies whose sequences/histories are underpinned by stratigraphic excavation. Given the exemplary nature of this chapter, we can do no more than to illustrate key stages in each kind of

biography, using the notion of the ‘snapshot’. If we think of the past as a slow-running film, what we often create from our investigations is a series of snapshots of the past – sometimes fuzzy, sometimes in focus, in a distinguishable order or in a wholly unknown sequence. From these snapshots we seek to build up the content and sequence of the entire film, with all of the accepted uncertainties of this approach. In this chapter we use a series of temporally well-defined snapshots of houses and settlements for each case study to show how the places changed and the effects of those changes on other changes. These snapshots can be thought of as ‘timemarks’ – the temporal equivalent of landmarks, in which a special event was long retained in social memory as a key moment in personal, household or settlement history (Chapman 1997).²

We begin with a single tell settlement and discuss three stages in the biography of a place – its birth, an episode in its life and its death. We then turn to four snapshots of a living house to illustrate the practice of house super-positioning, before returning to the specific implications of tell dwelling.

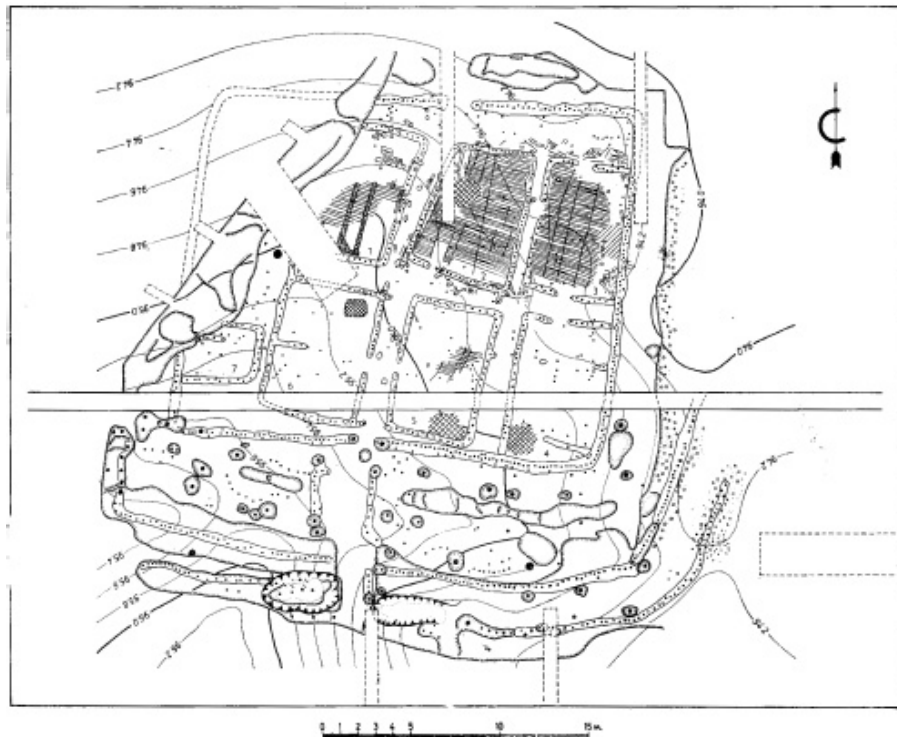
Ovcharovo – a Chalcolithic tell in North-East Bulgaria

The 13-phase tell of Ovcharovo, in North-East Bulgaria, has a long sequence of site plans based on a rectangular enclosed area and regularly laid-out rectangular houses (Todorova *et al.* 1983) (Figure 9.2). Bayesian modelling of the 13 ¹⁴C dates from the Middle and Late Chalcolithic levels (V to XI) showed a period of occupation lasting from c. 4800 BCE to c. 4450 BCE (Higham *et al.* 2008), with perhaps 100 years before this range and 50 years after, based upon a mean duration of 25 years per occupation phase – a total of fully 500 years, or 20 generations.

The birth of the site, c. 4900 BCE, took place in the upper reaches of the *Oteki dere* (Turkish: ‘dere’ = ‘stream’), on sloping ground where the valley opened out upstream of a canyon. Two factors came into play – the continued reliance on a traditional, accepted, geometric settlement form and the decision to locate the site in the uplands – further up the stream than the other three Neolithic sites in the valley (Todorova 1983: Obr. 2). The initial construction on cleared ground apparently entailed the digging of a palisade trench 0.50–0.80 m deep around a rectangular space 35 m by 35 m, followed by two further palisade trenches with the innermost enclosing a space of 25 m by 20 m (Todorova 1983: 27 and Tablo 10). Lateral palisades between the three linear palisades lined the southern entrance, which faced away from the stream. There was a single northern entrance in the palisade facing the stream. A north–south ‘street’

divided the inner space of the first settlement, which had two lines each of three houses, two on the east side of the street and one on the west side, with a smaller structure on the west palisade (1983: Tablo 13). This initial plan (Figure 9.2a) was a timemark that set the scene for all the later settlements, in terms of enclosed space, house orientation and size and the strong constraints on movement around the settlement.³ There can be little doubt that the first settlers had enjoyed satisfactory dwelling experiences in this kind of plan somewhere else – perhaps at Poljanitsa⁴ – before they created their new home. Thus the time of the place of the first Ovcharovo settlement was ancestral time presented in a new upland environment.

A key timemark in the life of the Ovcharovo tell was the time of deposition of a special find, referred to by prehistorians as ‘the Ovcharovo cult scene’ (Todorova 1983: Tablo VII). This scene was found in the ninth settlement (Late Chalcolithic Age, dated sometime in the 46th century BCE) in House IX/7, originally placed in an open house model deposited near one of the three storage jars placed next to the south wall. The scene consisted of 26 miniature objects: three altars; three short tables, red painted on all sides; three miniature pots, each with a lid; each table had three chairs, also red painted; four miniature anthropomorphic figurines, each with a miniature drum or a loaf of bread. Of the three principal interpretations of the Ovcharovo scene, only Todorova’s narrative (1983) takes account of all of the objects. She sees the scene as the representation of an ancient temple to the sun, the moon and nature, of which the solar cult was central. The figures were mediators rather than mother goddesses, with the older woman as the cult leader. By contrast, Koleva’s (1986) interpretation of the Ovcharovo scene was based entirely on the three main altars which were held to represent three lunar months. In the third explanation, V. Nikolov (1991) posits the main function of three altars as safeguarding crops in the hazardous last month before the harvest – i.e. rituals related to spring and early summer (Chapman 2015). Whichever version of these narratives is preferred affects the time of the place of this scene: a cosmological time frame for Todorova and Koleva, a seasonal harvest time for Nikolov. The deposit presented either the landscape or the heavens, relating the houses of the ninth settlement to a wider reality. But the placing of the scene in an open house model not only echoed tell life by framing ritual life within a domestic setting but also allowed multiple performances of the scene, with an extended domestic timespan for the figures and their accoutrements. After an unknown number of performances, the group was placed on the floor of a house before it was burnt.



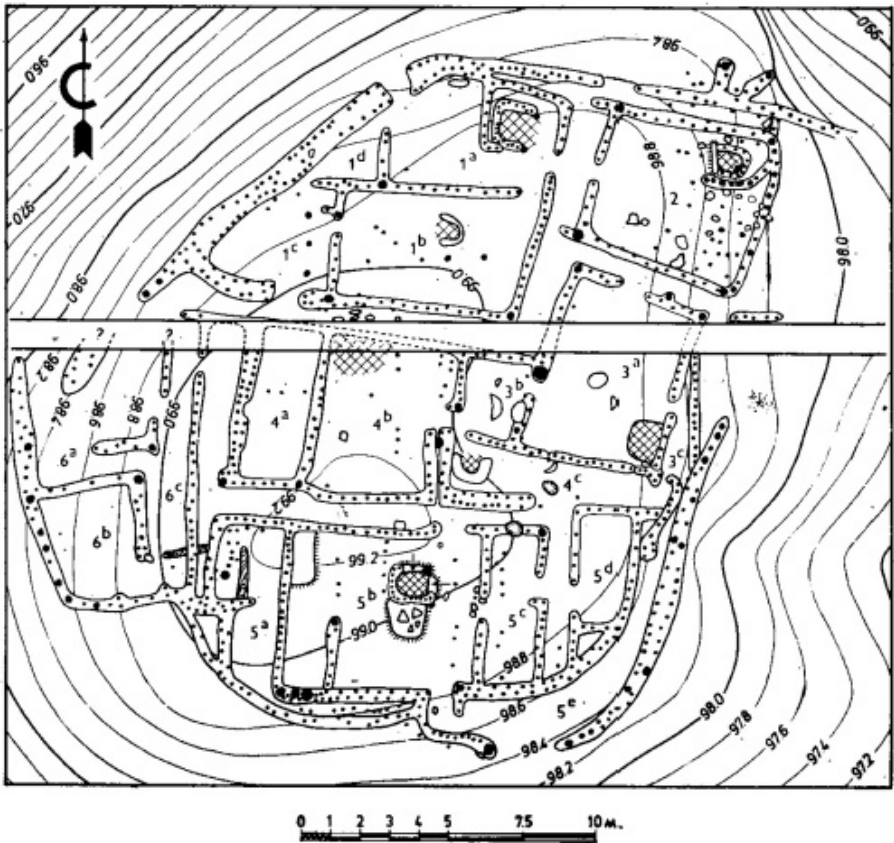


Figure 9.2 Plan of different levels at the Ovcharovo tell: (a) Level I; (b) Level XII

Source: Todorova 1983: Tablo 13 & 31.

The actual death of the Ovcharovo tell, most probably dating to the end of the 45th century BCE, cannot be understood because the unburnt 13th settlement has been eroded away, with no traces of surviving houses (Todorova 1983: 41–42). The excavator supposed that the 13th settlement was not so different from the 12th (1983: Tablo 31) (Figure 9.2b), in which the principles of the original formal plan had been lost and distorted, with a maze of alleys between houses replacing the cardinal street of most settlements and a group of six houses without a common orientation packed into a small, partly palisaded space with six entrances set at irregular intervals. In terms of the spatial order that would have been so important to community values, the villagers of the 12th Level had failed to mobilize its energies to maintain that order (Fletcher 1984). Yet the settlers lived there for longer and rebuilt their settlement one last time, persisting in the daily practices that had served them well for maybe two centuries or more. The time of the slow death of Ovcharovo led to a denial of ancestral time, lifeways, values and planning

principles – and it seems likely that this loss contributed to the death of the settlements. This implies a major dislocation in people's lives, the loss of a history and collapse of routine – indeed, a major timemark.

The birth, life and death of the Ovcharovo tell provided three timemarks of that place over a total dwelling duration of perhaps 500 years. Ovcharovo is a prime example of that group of enclosed north Bulgarian tells with formal planning based on a rectangular grid. Gheorghiu (2008) has observed that not only did the enclosure ditches or palisades create a strong barrier between inside and outside but also their complex entrances made moving into a tell a sensitive transition for outsiders and insiders alike. The graded movement from outside to the inner group of houses at Final Chalcolithic Dolnoslav in south Bulgaria followed the same principle (Gaydarska *et al.* 2007). The same process on a smaller scale happened with individual houses, whose door opened out onto the narrow lanes which crisscrossed the site. From the time of its birth, the tell constrained movement into and around itself; the small areas of public space limited outdoor activities, including outdoor ritual. Thus, ritual on the tell was largely restricted to inside the houses – as exemplified by deposits such as the 'cult scene', whose multiple performances were cut short only by the death of the house itself. The sense of formality, of appropriate and inappropriate actions, was created by, and itself created, the built space of the tell. The tell-dwellers' break with their formal planning in the 12th settlement, after many decades of traditional building, would have had a severe effect on everyday ritualized life on the tell. Rather than an overall plan, the 12th settlement was built from the houses outward, with alleys wherever there was no house and with the multiplicity of entrances vitiating formal entrance into the settlement. If the formalized, ritualized lifeways on the tell were conceived as a healthy organism, the decline of geometrical order marked a severe illness that would prove fatal.

We now move to a consideration of some of the individual houses at Ovcharovo by studying D. Bailey's (1996) intra-site analysis in his search for the continuity of buildings through successive levels of the tell – a practice he termed 'super-positioning'. Bailey posited two ways of maintaining continuity through time on this tell – the super-positioning of houses, which was particularly evidence between 3rd and 4th, 7th and 8th, and 8th and 9th Levels (Bailey 1996: [fig. 10.3](#)), and the use of fired clay house models (termed 'tectomorphs'), which were commonest in the other layers. Bailey suggested that these alternating distributions meant that both practices were designed to achieve the same aim – the inter-generational continuity of house ownership and dwelling-rights in newly constructed building levels.

The most dramatic example of house super-positioning at Ovcharovo provides us with our four household timemarks of a Chalcolithic house. D.

Bailey (1996) has shown how House 96 was first constructed in the 7th Level and rebuilt three times in the 8th, 9th and 10th Levels (Figure 9.3).⁵ What is innovative about Bailey's study concerns the different ways in which continuity with past dwelling has been negotiated, whether through the use of house models or through house super-positioning. It seems that tells could have provided the temporal context for the development of 'house societies', with the continuity of house super-positioning and the inter-generational transmission of inalienable property (e.g. tectomorphs, ritual sets, copper axes). But what did this mean for living on a Chalcolithic tell?

There have been several definitions of a 'tell' (Sherratt 1983; Gogâltan 2003; Link 2006), perhaps the most useful being that of Draşovean (2007: 19):

Tells are anthropogenic creations whose genesis, development and features are determined by certain pedo-climatic and relief conditions, by certain relations of production and social relations, by the character of the architecture and the type of the construction materials. They are the material expression of an orderly use of a well-defined geographic space. From a morphological point of view, the tells are the result of a cumulative process in which habitation traces accumulate vertically in a relatively consistent and regular way, within a well defined area.

In short, tells embodied the most permanent form of settlement in European prehistory – what Dragoş Gheorghiu (2008) called “immobile places in a landscape in flux”.

These processes produced a consistent visual difference between tells and flat sites. But the most important principle of tell living was the commitment to a long-term supra-household place-value based upon the importance of ancestral dwelling and materialized in the vast communal labour required to create and maintain the tell (*cf.* Draşovean and Schier 2010). Hansen (2010) has noted that there would have been a tension between the ancestral principle and the emergence of hierarchical leadership on tells. This idea is reminiscent of John Robb's (2007: 314) characterization of the main social change in the Italian Neolithic – the shift from tracing ancestry through co-residence in villages to genealogies by means of monumental stelae and small-group communal burials. The key aspect of tell living was that, unlike other site types, it combined both means of tracing ancestry – co-residence and genealogy – in the same settlement form.

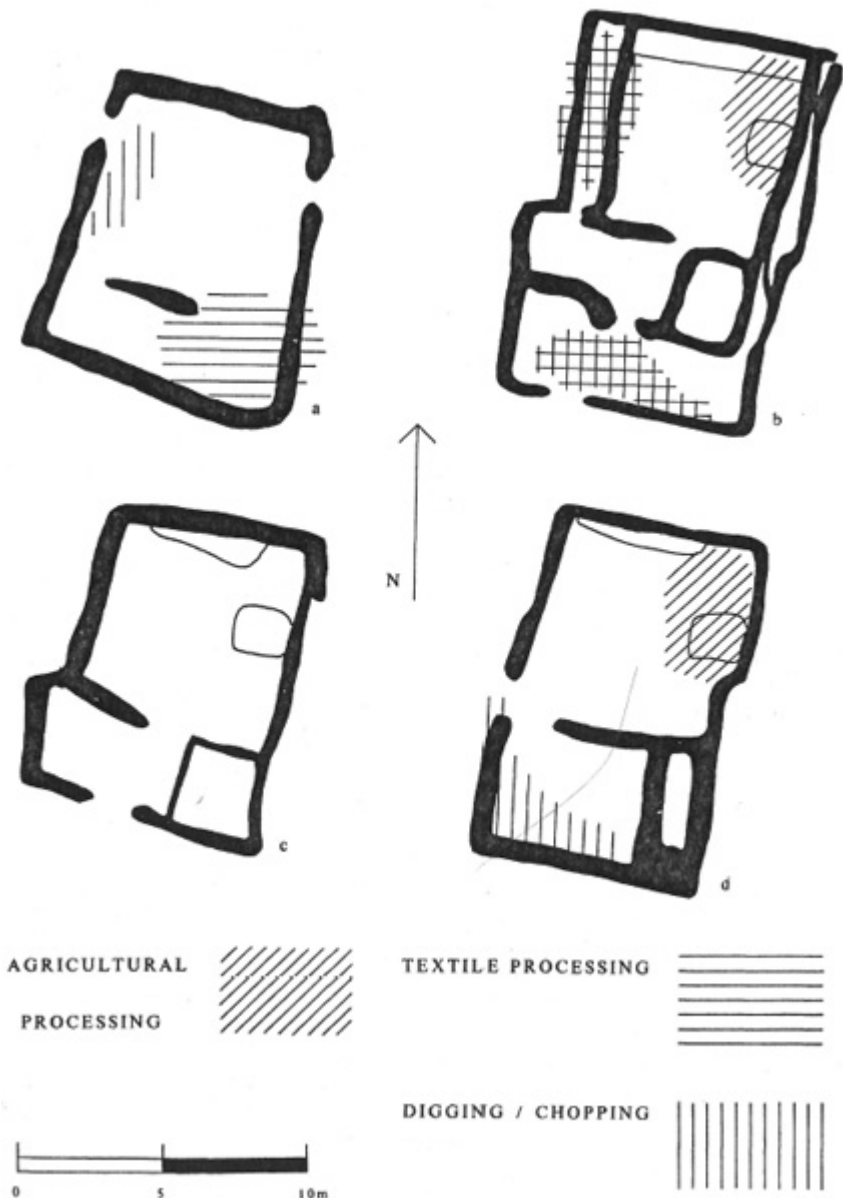


Figure 9.3 Plan of super-positioning of House 59, Ovcharovo tell

Source: Bailey 1996: fig. 10.2.

The late John G. Evans once posed a challenging question about tells as the physical embodiment of time and history (2005: 112): “How could it be that (tell) growth was so purposeful yet so incremental as to be invisible to adjacent generations?” Evans was correct that mounds themselves grew slowly in any single human generation but he missed the point that even minor differences

in height of a metre were sufficient to mark out houses standing on the mound from those on a lower flat surface. What was purposeful was not only (or only rarely) the increase in mound height but the commitment to ancestral values. The results of Draşovean and Schier's (2010) calculations of mound formation at Uivar showed the large scale of the collective enterprise of building a tell – far beyond any individual household's capabilities and explicable only through a supra-household commitment to the central element of tell ideology – ancestral values.

The other aspect of Evans' question about slow, incremental growth concerns tell biographies. Our investigations of tells are prone to the error which John Barrett (1994) pointed out – that we often take the final form of a site or monument to be its initial form. Thus, no tell began as a fully formed monument but started life as a 'flat' site, prompting many community decisions taken in favour of living directly where the ancestors lived rather than shifting sites before a mound took form (Chapman 1997). It is by no means sure that any initial flat site would become a 'tell'. Kotsakis (2005) maintains that, in central and northern Greece, such small flat sites were more important in the earliest period of the Neolithic than later, when other sites were growing up into tells. An important, unresolved issue concerns the extent of tell agency – the influence of existing tell form on the next decision on whether to continue life on the tell rather than move on.

Another characteristic of life on tells was the high built to unbuilt space ratio (BUB ratio).⁶ This required the formalization of socio-spatial relations involved with high-density housing so as to dilute, if not avoid, practical problems of privacy, inter-house audibility and problematic neighbours. The ancestral social space that 'covered' the whole tell remained the key to tell identities but their communities needed to maintain relatively tight communal rules over house size and shape as well as controls over 'unsociable' practices. There were also many practices that could have occurred off-tell but which were impractical on tells, such as animal-keeping, gardening, high-temperature pyrotechnics and large-scale public meetings, including rituals. As Crnobraja (2012) appreciated, a packed house layout meant people seeing and hearing neighbours all of the time. Merkyte and Albek (2012: 176) suggest that both coherence and intimacy arose from the dense clustering of uniform structures in rows, where people's front doors often faced the walls of nearby structures. Regular, geometric planning of house layouts may have been partly a response to crowded living conditions, just as hospitality would have been an important response to inter-household tensions arising from spatially closer living (Whittle 2005).

In summary, tell living was a compromise between the advantages of coherence and intimacy arising from a packed living space and the

disadvantages of inter-household friction and the impracticality of displacing so many activities to the off-tell space. Although the almost imperceptible growth of a mound meant a long, slow form of temporality, the visual differentiation of a once-established mound reinforced the identity of the community, which was in any case founded on the ancestral principle central to tell living and its perpetuation. To what extent can we find similar timemarks on another class of settlement – the Trypillia–Cucuteni flat sites?

The Trypillia mega-sites of Ukraine – a house-dominated society

The Trypillia–Cucuteni group was one of the most durable entities in the prehistory of Eastern Europe (Monah and Monah 1997; Videiko 2012). The group lasted from c. 4800 BCE to c. 2800 cal BCE, covering 250,000 km² of the forest-steppe zone and stretching from the eastern Carpathians in Romania as far east as the river Dniepr near Kyiv (Figure 9.1). One of the most controversial features of the Trypillia group, though apparently absent from its Cucuteni counterpart, is a series of settlements of extraordinary size, reaching to 320 ha in its largest settlement (Rassmann *et al.* 2016) and with various designations on which little agreement has yet been reached (e.g. proto-cities: Videiko 2012; ‘giant-settlements’ (Korvin-Piotrovskiy 2003) and ‘mega-sites’ (Chapman *et al.* 2014a, 2014b)). The mega-sites have attracted much recent research attention, with two major international initiatives (a Ukrainian–British team working primarily at Nebelivka (for complete Project archive, see <https://doi.org/10.5284/1047599>), and a Ukrainian–German group focusing on Majdanetske and Taljanky). The plethora of recent fieldwork makes it apposite to pause and reflect on the questions that Trypillia researchers have tried to answer since the 1970s, when mega-sites were first discovered, as well as the new questions that have arisen in the last five years.

In the first methodological revolution of the 1970s and 1980s, the basic rules of mega-site spatial planning and organization were established through remote sensing (aerial photographs and geomagnetic prospection) (Videiko 2012). The key feature was the concentric rows of houses, leaving a central unbuilt space; the rows ranged from two (Nebelivka) to nine (Majdanetske). Although it is claimed that concentric planning was found as early as the Trypillia A phase (Videiko 2012), it is hard to define regular concentricity until the Trypillia B2 phase – the time of the emergence of the mega-sites (Gaydarska and Chapman 2016).

The second methodological revolution was achieved through spectacular advances in geomagnetic prospection and has now produced complete plans of

small Trypillia sites (e.g. Apolianka: Rassmann *et al.* 2016), partial plans of three of the largest mega-sites (Majdanetske, Taljanky and Dobrovody: Rassmann *et al.* 2016) and the first complete geomagnetic plan of one of the largest mega-sites – Nebelivka (Chapman *et al.* 2014a) (Figure 9.4). Nine new elements have been identified in this new geophysical research: perimeter ditches, tracks, palaeo-channels, unburnt houses, regularly occurring household clusters (Neighbourhoods), pit clusters, bounded unbuilt spaces and larger ensembles of houses (Quarters), as well as buildings much larger than ‘normal’ houses (Assembly Houses). A tenth novel feature – pottery kilns – has been found at Majdanetske and Taljanky (Korvin-Piotrovskiy *et al.* 2016). These new elements reveal a far greater degree of internal spatial ordering than was ever detectable on the older plans. Many of the elements discovered at Nebelivka have also been identified at Majdanetske and Taljanky (Rassmann *et al.* 2016; Müller and Videiko 2016). All of these new geophysical plans underline the same basic fact of the dominance of the house in Trypillia settlement (Burdo *et al.* 2013). We begin with three snapshots from a house biography, later turning to the biography of the Nebelivka mega-site.

Trypillia houses

Ukrainian colleagues have made detailed studies of the birth of Trypillia houses (their building) (Burdo *et al.* 2013; Chernovol 2012). Here, we recount the general insights gained from an experimental house-building programme carried out in Nebelivka village in 2014. Two ‘Neolithic’ houses were built – a one- and two-storey house, with the idea of comparing their traces after burning. After clearing the house ‘site’, we received a large quantity of timber planks (pine rather than oak) and Mr. Stuart Johnston⁷ started to implement his designs with the co-operation of a small team of local builders. The timber frames of the houses emerged after a week, at which point the builders needed more ‘local’ resources – hazel rods for the wattle, reeds for the roof, water for the clay mix for the walls and ceilings, cereal chaff for the temper of the daub and organics for making paint. Villagers who knew their local environment collected all of these resources, with two key implications. First, the house-building project brought the project and the villagers into a closer, more productive relationship than any other aspect of the project research (including excavation). The house-building project soon became known throughout the village and beyond, becoming a truly ‘communal’ project ‘owned’ by the village. Second, the fabric of the house constituted a summary of all of the different environmental zones around the village – the lakes providing reeds and water, the arable fields giving chaff for temper, clay sources further from the village provided the clay, specific zones of secondary woodland provided

hazel rods while primary forests would have given timber for the frames. In other words, the houses were a summary statement of the village landscape. The houses also stood in their clearing as monumental structures – visually impressive and a mark of the present village's links to their Neolithic past (Figure 9.5a). There is no reason to believe that Neolithic house building was any different from the modern equivalent in these two reference points of relationships to the Neolithic landscape and the Neolithic past.

A second snapshot from a Trypillia house biography highlights an episode from the life of dwelling house 22/3 from the inner house circuit in the Northern part of Nebelivka. The 2 m by 1 m test pit placed in the corner of the geophysical anomaly showed that a feature which the Durham team termed a 'platform'⁸ had been constructed on a stamped earth floor (Figure 9.6a). These platforms are well known from Trypillia houses and Assembly Houses, usually located near the short wall of the buildings (Chernovol 2012: fig. 8.8) and made of specially prepared clay layers to form a surface upstanding by 5–10 cm from the floor. Platforms were thus a focal point in the house, sometimes featuring burning rituals or designed to show off objects placed on the surface. The episode in the life of House 22/3 concerned maintenance activity – the replastering of the platform after multiple use to ensure continued use into the future. This repair and maintenance can be seen in the section through the platform (Figure 9.6b). In general, maintenance activities formed a vital part of life (Montón *et al.* 2008); one scenario is that the household returned to their Nebelivka house as part of a seasonal agglomeration and decided to repair their platform for future use. At a later stage, House 22/3 was burnt down, producing much daub and some vitrified daub, as with so many other Trypillia houses.

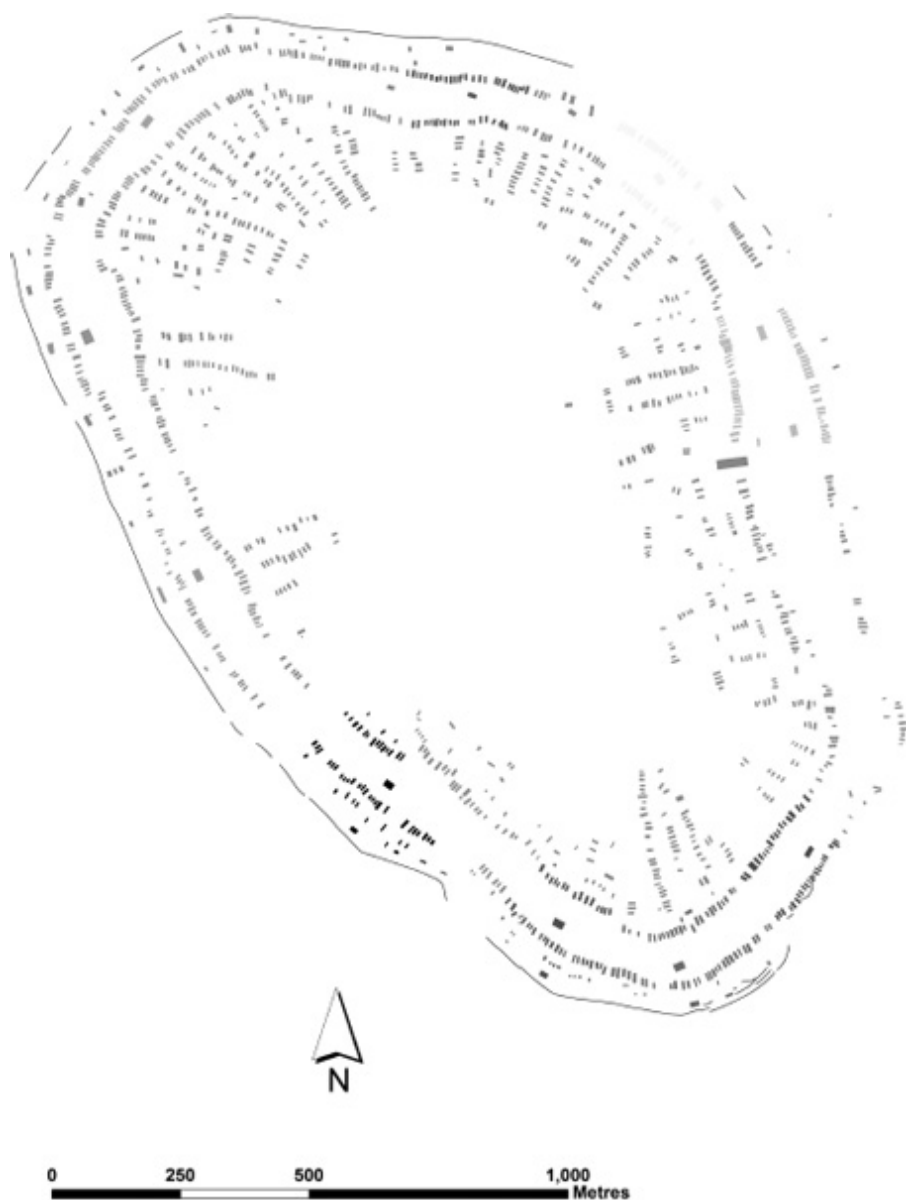


Figure 9.4 Complete plan of the Nebelivka mega-site, with early stages of settlement in Quarters

Source: D. Hale (Durham University Archaeological Services); Nebbia (n.d.): fig. 6.6; cf. Chapman and Gaydarska 2016: fig. 6.5.



Figure 9.5 Experimental 'Neolithic' houses built by the Nebelivka Project: (a) building the one- and two-storey houses; (b) burning the two-storied house, standing next to the completed one-storey house

Source: Trypillia Megasites Project.

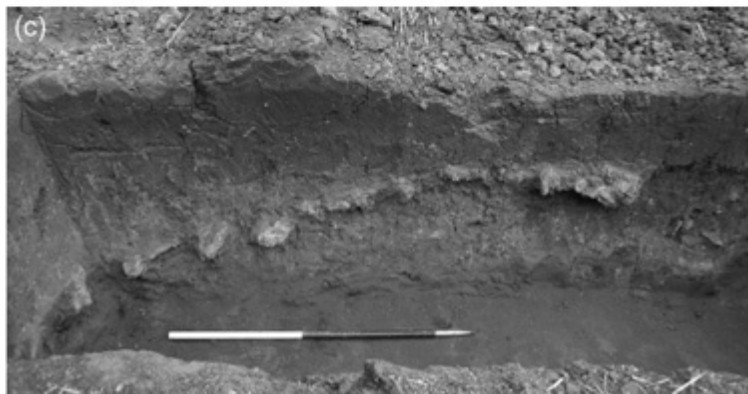
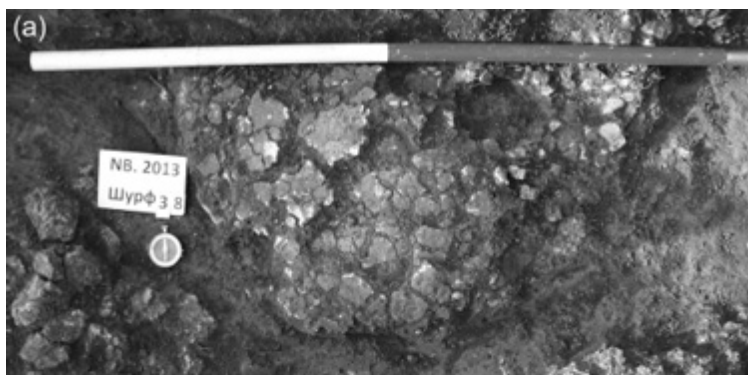


Figure 9.6 Excavation details from project test pits: House 22/3: (a) ‘platform’ (lighter daub in ‘tesserae’) juxtaposed with destruction daub; (b) section showing two levels of renewal of ‘platform’; House 22/4: (c) section showing mound of burnt house debris

Source: Trypillia Megasites Project.

The final snapshot is by far the most dramatic: the burning-down of the house as a final stage in the life of the house. We start with the burning in Easter 2015 of the two-storey experimental house built in summer 2014. In a lengthy discussion based upon the literature on house-burning experiments

(Burdo 2011), it was noted that there were very few cases in which the house-burning ‘created’ the type of daub mass (Russian: *ploshchadka*) found on all Trypillia settlement excavations. To ensure such a result, we decided to fill the house with as much timber as possible – about 30 m³, placed at right angles to achieve maximum air passage. In front of a large audience from Nebelivka and many surrounding villages, the fire was lit at 12:50 p.m. After 36 minutes, the thatch roof caught fire and burnt away completely. Within 80 minutes, one outside wall fell outwards in a single unit. The entire house – all walls, ceilings and roof were burning splendidly by 2 p.m. (Figure 9.5b) and, after 4 hours, there was only part of one wall standing. A massive cone of ash 1.5 m high covered much of the interior, but overnight this had almost all disappeared. Many of the details that the project had found in excavations of timber-framed burnt houses had appeared during the experimental firing (Johnston *et al.* in press). The project excavation of the remains of the burnt house in August 2017 confirmed that vitrified daub had been produced in the firing, as well as remains characteristic of the typical Trypillia *ploshchadka* (Johnston *et al.* in press).

Everyone who came to see the burning agreed that it was one of the most spectacular events they had ever seen – the classic signal for a timemark. It seems likely that the Nebelivka house-burning of 2015 will remain in the memory of not just the Nebelivka villagers but also people from several other villages for many years; everyone will recall the exact spot where the house was burnt. It was striking how many villagers took photos of themselves next to the burning house. Each member of the project team closely involved with the experiment was certainly touched by their experience and strongly enchanted to all the other builders, even though no one actually lived in the house. Consider, then, the magnitude of the emotional fallout for residents in a house that was burnt down⁹ (Tringham 2005).

Excavations of Trypillia burnt houses have shown that figurines commemorated the recent death of the household through burning, with at least three possible times of figurine deposition: in the house before it was burnt; thrown into the house during the fire; and placed on the burnt daub pile after the fire. These modes of figurine deposition included deliberate fragmentation, which led to the deposition of one part of the figurine in a dead house and the preservation of another part of the same figurine in the land of the living, enabling future practices linked to the newly dead house. Figurine deposition in a burnt house is a good example of how facets of social time were materialized in Trypillia ritual practices. The past significance of fired clay figurines was reiterated with every performance through the representation of the long-term ‘Big Other’ (the Trypillia beliefs that transcended individual lifetimes, encapsulated in a figurine tradition of almost

two millennia: Chapman and Gaydarska 2018).

It is impossible to summarize adequately the results of the excavations of burnt houses on Trypillia settlements, since this activity constitutes *perhaps 95% of all* archaeological excavation of the Trypillia world. Here, we shall do no more than highlight the links between Trypillia houses and their own histories and temporalities.

Trypillia–Cucuteni houses materialized an entire worldview for their occupants, creating a warm, safe, comfortable, decorated, ritualized and monumental place which could be endlessly reproduced over 2,000 years, or an estimated 80 successive generations. First built in the late fifth millennium BCE, these houses went on being constructed long after almost all other Balkan Climax Copper Age communities had become transformed into smaller, more dispersed settlements with less elaborate domestic buildings. In many ways, the Trypillia–Cucuteni house was the enduring symbol of what Monah and Monah (1997) have termed “the last great Chalcolithic civilization in Europe” (Burdo *et al.* 2013). The eastward Trypillia expansion brought mixed farming, sedentary living and large, well-appointed houses to the forest-steppe zone for the first time. Thus, although we can identify ceramic ‘provinces’ at a general and a regional level – the Cucuteni (painted wares) vs. the Western Trypillia (painted wares) vs. the Eastern Trypillia (incised wares) – the houses in these major provinces do not show such great differences from each other as are claimed by Tsvek and Rassamakin (2005) (for minor regional differences, see Burdo *et al.* 2013: 108–110). In other words, the Trypillia–Cucuteni house showed both design flexibility to adapt to local and regional conditions as well as a range of family sizes, and also consistency over a long period of almost two millennia. No other group until the Slavs of the Early Mediaeval period showed such a devotion to long-term sedentism as Trypillia–Cucuteni communities.

Although houses were occupied over decades, if not longer periods, settlements did not necessarily have an overall duration of more than a century or two, in comparison with the cultural duration of almost 2,000 years. The first Bayesian modelling of the duration of a Trypillia mega-site, based upon over 90 Accelerator Mass Spectrometry (AMS) dates, showed the occupation of Nebelivka lasting 150–200 years (Millard *et al.* in preparation), or five to six generations. A strong element of settlement mobility is built into the Ukrainian models of settlement trajectory to cope with short settlement duration (Diachenko 2016). One way for the maintenance of cultural continuity throughout settlement relocation was the construction of houses, pottery and figurines in similar styles. The Trypillia–Cucuteni house seems an excellent example of Anick Coudart’s (1998) observation that, once adopted, the form of domestic architecture resists change very strongly because it is a

value system and worldview shared by all residents, inculcating the history of the mobile group through materialization of a common, historically rooted style. At this juncture, we shall turn from house biographies to another form of biography – the site biography – to consider its temporality.

The biography of a mega-site – Nebelivka in transit?

Most reactions to mega-site settlement plans provoke images of top-down settlement planning, geometric order and social hierarchy (Müller *et al.* 2016). No one studying these plans has suggested a plausible mechanism for a bottom-up growth of such a site plan. And yet the complete plan of the Nebelivka mega-site shows so many variations across the entire site at the level of each social grouping – the Quarter, the Neighbourhood, the Assembly Houses and indeed the individual house – as to suggest that the top-down nature of planning by a site elite has been overstated (Chapman 2017). This re-evaluation of the Nebelivka plan goes hand in hand with a challenge to the standard ‘maximalist’ model of mega-sites as long-term, permanent settlements of many thousands of people (Gaydarska and Chapman 2016). Nine different lines of evidence present challenges to the ‘maximalist’ model, including the palaeo-environmental conclusions of a rather moderate human impact based on a sediment core with pollen, charcoal, loss on ignition and erosion data collected 250 m from the edge of the mega-site (Albert *et al.* submitted). In short, these proposed re-interpretations of the Nebelivka settlement are focused on shorter-term occupation, possibly seasonal in nature, by a far smaller number of people. Marco Nebbia *et al.* (2018) has developed a model of gradual settlement of the Nebelivka concentric oval area which built not inwards from the perimeter ditch but outward from the core area of the site – the unbuilt central open space. Three snapshots of the Nebelivka settlement trajectory help to explain the new model.

The first snapshot shows an early phase of settlement, with a sequence of different settlement units moving to Nebelivka on a seasonal basis from five or six different other settlements (Figure 9.4). The separation of the donor settlements is mirrored in the distinct Neighbourhoods at Nebelivka – with closer settlements dwelling in more closely related Neighbourhoods than more distant settlements. In this manner, a spatial gradient of relatedness is converted into a historical pattern of relatedness. As communities leave Nebelivka in the autumn (?), most of their houses were left standing but those communities not planning to return to the mega-site for further aggregations would have burned their house(s) down at the end of their stay.

The excavation of a large sample of 2 m by 1 m test pits located in geophysical anomalies representing dwelling houses or meeting houses

showed an important aspect of house-burning – the formation of low, oval mounds of burnt daub marking the place of the once-monumental house (Figure 9.6c). With the passage of decades at Nebelivka, there was a slow, cumulative growth in the number of house-burning events and therefore the number of low burnt mounds spread across the site. This pattern of memorialization would have been particularly clear in some Neighbourhoods; it is tempting to consider that it was in the form of the low mounds that the concept of a ‘house society’ may have been rooted, since there was no evidence for house super-positioning at all. If the concept of ‘house society’ did not require the physical evidence of, e.g. house super-positioning (Gillespie 2007), the clustering of a series of burnt house mounds to form a ‘Neighbourhood’ may have enshrined the concept just as strongly.

(a)



Quarter L



Figure 9.7 Two stages of the Quarter L of the Nebelivka mega-site plan, showing expansion of zones of 'memorial mounds': (a) mid-life stage; (b) final stage

Key: black half-circle – burnt house as 'memorial mound'; dark symbols – burnt houses; mid-grey – unburnt or poorly burnt houses.

Source: Trypillia Megasites Project.

But this pattern of memorialization would have developed equally across the whole of the site. The second and third snapshots shows first an estimated 50%, and then 100%, of all the burnt houses at Nebelivka as low burnt mounds

(Figure 9.7a–b). What the first map purports to show is that, while many people were still living at Nebelivka and indeed would continue to come to Nebelivka, much of the mega-site was already becoming a ‘house cemetery’ where memorials of once-alive houses were beginning to outnumber the still-living houses. In the third snapshot, the time of the place of Nebelivka was a memorial time, when all of the houses that had once been dwelt in at Nebelivka had been abandoned, some with the spectacular house-burning event (perhaps two-thirds of all houses) and others less conspicuously, more quietly, without any burning. It cannot conclusively be proven that Trypillia houses were burnt because of the death of an important member of that household (contra Kruts 2003 and Chapman 2015). For that reason, we prefer to use the term ‘memorial mound’ rather than ‘mortuary barrow’. We suggest that it was not a coincidence that the form of the memorial mound resembled a smaller version of the so-called kurgan mounds supposedly built by steppe groups (Ivanova 2014). This interpretation of the mega-site and its hundreds of memorial mounds has two major implications. First, although there remains a lack of human burials on Trypillia settlements, the creation of memorial mounds by the very frequent practice of house-burning occurred both on smaller sites and mega-sites, creating a memorial landscape inside every settlement. This meant a juxtaposition of the domestic and the memorial zones on every Trypillia settlement, with the mounds connected to the death of the house and, in some cases, perhaps also the death of household members. Second, the memorial mounds of the Trypillia settlements created a historical precedence for barrow-building which enabled Trypillia groups to accept the ‘innovation’ of steppe kurgan burial into the very core of their ideological practices. In this way, the 2,000-year historical past of Trypillia houses was reconfigured into the landscape feature of a memorial mound which helped to ‘domesticate’ those mortuary barrows of the steppe zone in a post-Trypillia world.

Summary and conclusions

The concept of the ‘timemark’ was introduced in response to Yi Fu Tuan’s memorable question “What time is this place?” (Tuan 1978). The snapshots extracted from a site biography can be thought of as ‘timemarks’ – the temporal equivalent of landmarks, in which a special event was long retained in social memory as a key moment in personal, household or settlement history. These special events would have been the centre of the telling and re-telling of epic narratives – likely to spread through neighbouring communities as a way of relating to a specific place and people and attracting visitors to that

place.

In counterpoint to the special event, the lifeways which often revolved around everyday maintenance activities in the household constituted a repeated form of lived time which contributed each day to the intimate time-place framework of dwelling. Just because flint-knapping in a pit outside the house rarely attracted the same attention in communal storytelling as the Great Bear Hunt does not reduce tool repairing to an anonymous background – these activities retained their agency to form relations within and between houses. The silent repetition of such activities in many settlements of a related group itself formed the social network of inter-relatedness which sustained the long-term traditions of the group.

The implications of this approach concern the expansion of our possibilities of building site biographies. Certain timemarks are well documented, such as the Ovcharovo ‘scene’ (see above, pp. 151–152). But while other timemarks may not have been materialized so obviously, we should not be afraid to draw on fragments of evidence to infer important events. The dozen lion bones found in Levels IV and V of the Copper Age tell on the Big Island at Durankulak in North-East Bulgaria (Bartosiewicz 2009: 283) may be construed as the result of sharing out the meat of a fantastical beast or its trophy head after at least two successful lion hunts. The places where this creation of local histories happened more than anywhere else were settlements, whose place-values were interwoven into the special and quotidian finds deposited there.

In this comparative study of two settlement forms – Chalcolithic tells and concentrically organized Trypillia flat sites – we have sought to contribute to the general understanding of time and history by engaging with the contrasting ways in which time and history were built into the fabric of both settlement forms. The obvious contrasts lay in their landscape contexts: small tells dispersed across the landscape, their mounds giving physical form to their longevity (the ‘vertical’ mode) and site histories nucleated in each tell; massively nucleated mega-sites with much smaller flat sites many km distant, with the mass of living houses creating a landscape impression but with histories dispersed across the settlement, with seasonal visitors from different ‘home settlements’ bringing their own histories to the mega-site (the ‘horizontal’ mode). While both burnt and unburnt houses were found on both tells and flat sites, the timemark of a burnt house made the same impact on mega-sites and tells, with the difference that, on tells, burnt house debris was flattened and actually buried under (giving birth to) new houses while, on the flat sites, burnt houses formed memorial mounds that came to dominate the settlement in the later stages of its history. Thus the cemeteries forming the external mortuary domain of tell communities contrasted with the mixing of living and mortuary elements on the Trypillia–Cucuteni flat sites, producing

contrasting ways of memorialization.

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Notes

- ¹The term 'Old Europe' was used by Marija Gimbutas (1982) to indicate regions of south-east, eastern and central Europe linked by common ritual practices. A more recent use was in David Anthony's exhibition catalogue (Anthony and Chi 2010; cf. also Chapman, in preparation).
- ²Examples of 'timemarks' would have included the birth of triplets, the exchange of the most spectacular shell bracelets, the construction of a new Assembly House, the killing of a great bear or the death of the village chief.
- ³For example, in the first settlement, only five access lines were open to guide movement around the site.
- ⁴A similar, small tell in the lowlands 6.5 km from Ovcharovo (Todorova 1982).
- ⁵For critiques of Bailey's application of this method and his reflectionist logic, see Tringham (1995, 100) and Chapman, in preparation.
- ⁶The BUB ratio can be calculated if the settlement is completely investigated and bounded: the area covered by structures (built space) is divided by the area of open land (unbuilt space). Thus, if built space covers 2 ha and unbuilt space covers 3 ha, the BUB ratio is 1:1.5 (Chapman 1989).
- ⁷Then an end-of-second-year student, now a Durham graduate.
- ⁸The Ukrainian term for these usually circular features was 'altar': e.g., Chernovol 2012).
- ⁹The unburnt one-storey house still stands in Nebelivka village as a trace of an Anglo-Ukrainian project of 2009 and the 2010s.

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Prehistoric histories of Hohokam kin groups

Bradley E. Ensor

A central problem outlined by the editors in [Chapter 1](#) is a disjunction between long-term narratives that are nonhistorical and short-term narratives of agency, practice and meanings without much temporal depth. They suggest that theoretically and methodologically problematizing time, history and prehistory may offer solutions to reconciling the disjunction. This chapter seeks to stretch narratives of agency, relationality and identity over long temporal spans by breaking down time, ‘history’ and ‘prehistory’ into effective components that can be reconstructed into a holistic approach to long-term history via archaeological material culture. It centralizes kinship as practices reproducing and manipulating relationality and identity that when analyzed empirically in the archaeological record may reveal idiosyncrasies in kin groups’ responses to the broader long-term political economic contexts in which they are embedded. What follows is a chapter on time, history and prehistory and how they are compatible. Next, how kinship is essential for understanding relationality, identity, practice and structure is described. Finally, a case study comparing six prehistoric Hohokam kin groups illustrates long-term histories of idiosyncratic relational and identity strategies to survive within a competitive political economy, leading to the conclusion that history and prehistory are compatible for achieving long-term narrations of agency, relationality and identity.

Time, history and prehistory

Time has both interpretive and measurement dimensions. ‘History’ is a theoretical perspective. ‘Prehistoric’ is methods for interpreting history: practice leading to group idiosyncrasies within historically contingent social

contexts.

Time

Time exists. Einstein's general theory of relativity states that time began at a singularity (the 'big bang'), is perceivable only by distance (speed of light) and this space-time is influenced by gravity (e.g. the curve and slowing of light around the sun or clock speeds at different altitudes). Time can have no directionality, yet observed time is directional from past to present – determined by thermodynamic movement from order to disorder, memory of past rather than future and the expansion of the universe (Hawking 1988).

Time is culturally constructed. Although expressed variably, all perceptions of time include multiple dimensions (Munn 1992). For example, proletarians internalize clock-time for productivity, daily and seasonal cycling and use precapitalist calendars measuring long-term time since a religious event. Archaeologists may have difficulties interpreting some cultural constructions of time (e.g. Geertz's (1973) static time) without textual evidence, historical analogy, or informants (but see Schmidt, this volume). For Malinowski (1927) and Evans-Pritchard (1940), time is rhythm for reckoning when things occur on daily and seasonal cycles. Archaeological interpretations of cyclical dimensions using seasonality data may prove interesting, but is not addressed here. For Bourdieu (1990), agency is for manipulating a future. Burton (1983) describes lineage time as a relationship between ancestors and the living at spaces, viewed here as *collapsed space-time*. Combined with agency, a useful interpretive dimension combining material space, short-term practice and long-term time emerges: *practice to collapse space-time*.

Time is a tool. The archaeological periodization of time was never meant to discover cultural perceptions of time. As a tool, archaeological chronologies can be altered or refined for different purposes (see Bailey, Bintliff, Lucas, and Simonetti, this volume). Time as a measured dimension is operationalized here using traditional phase sequences. Group histories are observed through their sequences of practices: phase by phase, and sequentially within phases.

History

A long-term view of archaeological theory leads to a generalized understanding of what 'historical' perspectives entail. Evolutionism treats humans as guided by external factors (not human social dynamics) through *nomothetic* (universal) preconceived stages: e.g. progression in 'morality' in the 19th century; technological efficiency, environment, ecology and population in functionalist and neo-evolutionary processual archaeology; or ecology and

adaptation in today's evolutionary ecology and behavioural archaeology (Brumfiel 1992; Hegmon 2003; Trigger 2006). Unlike culture area perspectives that denied history to non-Europeans (assuming stasis), culture historical archaeology was first an exercise in tracing the specific unique histories of mythical racial nationalities: origins, territories, migrations and accomplishments (Trigger 2006: 233–261). Culture historians later developed elaborate classification systems for chronologies and operationalized culture as material traits: the changing geographic distributions of which allowed interpretations on particular histories of cultural diffusion and migration (Trigger 2006: 295–303). Thus, culture historical archaeology is decidedly 'historical' (what actually happened) rather than evolutionary (how things should happen). Although conceptually broad and diverse, post-processual perspectives view specific communities (not whole 'cultures') as idiosyncratically shaped by the histories of their human strategic agency – shifting the focus to internal social dynamics and differentiation (Hegmon 2003; Trigger 2006: 444–478). North American archaeology frequently combines insights of processual and post-processual perspectives – what Hegmon (2003) terms "processual-plus" having interests in historical agency. Thus 'historical' has taken on additional dimensions under post-processualism. People are agents in change – going beyond culture historical views of people as mere mechanisms of diffusion or migration. Early post-processualism, on the other hand, was overly ethnocentric in applying ideologies of individual 'free will', evaded by a greater emphasis on practice (Bourdieu 1977, 1990) and communal agency (e.g. Saitta 2000) embedded in structure (Giddens 1984).

For Marx (1964), each mode of production, which need not be a 'type', is characterized by its specific social relations of production – providing structure for daily practice ("mode of life") yet with contradictions channelling practice in a trajectory (process) toward crises. The inevitable crises compel social transformations. The outcome is explained through historical circumstances and human agency. This is neither evolution nor history but both. Yet both process and agency are endogenous social dynamics, which is more in line with post-processualist views of 'history'.

The long-term view of theory illustrates competing nomothetic evolutionary and idiosyncratic historical perspectives. The more recent post-processual contributions to historical perspectives involved greater emphasis on agency, usually envisioned as embedded in structure reproduced through practice. Once considering structure and practice, however, we are brought back to Marx's foundational perspective that encapsulates both process and history, albeit through internal social dynamics in line with post-processual perspectives.

Prehistory versus history

The distinction between periods of time without written records (prehistory) and with written records (history) is a useful dichotomy. “Prehistory” denotes time before writing, and hence before states developed within a region or expanded into other regions providing the first written records (for elite propaganda, tributary accounting and rationales for conquest).

However, ‘prehistorical’ and ‘historical’ also dichotomize methods for research. ‘Historical’ archaeological research relies on written records, which is taken to its greatest extreme in classical archaeology. In contrast, ‘prehistorical’ archaeological research relies on material culture other than writing – to study that which occurred before writing (e.g. Trigger 2006: 121–158). Culture historians mastered the creation of relative chronologies using material culture and stratigraphy, later augmented with post-WWII absolute dating techniques. In contrast, historical and classical archaeologies use texts to interpret material sequences. Processual archaeology greatly expanded methods relying on material culture for interpreting social organization, human-environmental relations and economies to characterize *societies*. In contrast, classical archaeology uses texts to interpret elites and their contexts – the subjects of writing – thus limiting itself to questions guided by what and who was written about. Prehistoric archaeology is also adopted into historical archaeology to better understand societies, though this is less common in classical archaeology. Thus prehistoric archaeology involves methods to study segments of society – even during historical periods – who were ignored or misrepresented by elites and foreign conquerors.

History via prehistory

Despite the post-processualist shift from evolution to idiosyncratic histories of agency, the processualist methods developed for prehistoric archaeology have not changed and can serve both theoretical perspectives. Much archaeological data to address processualism can be reinterpreted through post-processualist lenses. Most post-processualist-guided fieldwork and analyses use prehistoric archaeological methods originally developed for processualism. Therefore, prehistoric archaeological methods are applicable to interpret idiosyncratic histories.

To interpret group histories forged through agency before texts, archaeologists need data on groups; their chronological, social and ecological contexts; and how they changed. Broad horizontal excavations and spatial analyses provide the data for interpreting social groups, their changing social compositions, and their material associations. Any interpretable material

pattern left by a group is the result of practice. Although sequential changes can be interpreted as evolutionary stages, the same observed changes can also be interpreted as the results of agency by internal social groups reacting to the interpreted historically contingent social contexts. Normative models of change derived from archaeological patterns could be interpreted as the result of evolution or as society-wide uniformity in agency. These are competing perspectives when using normative models of change. However, material culture suggesting intra-societal variation among groups would negate normative models, and hence give greater weight to a historical interpretation of idiosyncratic group histories forged through variably situated agents' strategies.

Kinship

In addition to problematizing time and history, this volume is also concerned with narratives of agency, relationality, identity and memory (Souvatzi *et al.*, this volume). The interpretation of agency has been described as a component of a historical perspective that can be approached through methods for prehistoric archaeology. Kinship – human social relations (Murdock 1949) – is the study of intersubjective 'relationality' (e.g. Sahlins' (2013) "mutuality of being"). Through kinship, social groups, social relations of production, and the most important loyalties, identities, and subjectivities are created and manipulated.

Corporate kin groups

All humans recognize genealogical relationships, yet individuals' *kindreds* are never groups, but rather, networks of individual biological and affinal relationships. In most forms of social organization the majority of a person's kindred are unimportant to making a living, sharing, obligations, loyalties and identities. So that readers less familiar with kinship may appreciate this, the following briefly outlines common ways that corporate kin groups are organized.

Cross-culturally, the smallest corporate groups – groups that collectively own resources with which members make a living – are most commonly extended families. Matrilineal families include only members related through matrilineal descent, thus excluding cross cousins on the mother's side and all genealogical relations on the father's side (including the father). The majority of an individual's kindred are thus excluded from their corporate extended family. All children automatically belong to their mother's family. They do not

belong to their father's matrilineal family, they do not have rights to father's family's resources, and they have no obligations or loyalties toward members of their father's family. To reproduce this social organization, matrilocality is a practice whereby each married sister and parallel female cousin brings to the residence a husband. Although those husbands do not belong to their wives' family, they labour for, and help reproduce, their wives' corporate families, which is the family of their children. None of the married men belongs to the matrilineal family at whose estate they live – they belong to their own corporate family, from which they are separated physically, and which is not that of their children.

Corporate patrilineal extended families include only those related through patrilineal relationships, thus excluding the majority of each member's kindred. All children automatically belong to their fathers' patrilineal families, in which they have rights, obligations and loyalties which are not extended to their mothers' families. Patrilocal postmarital residence reproduces patrilineal families by keeping men, through whom rights flow, together. Married women are thus living at, working for and reproducing their husbands' and children's patrilineal families, not their own. In some societies, limited secondary rights may be obtained through the other parent's family but this would not be routine.

Unilineal principles are also used to form larger corporate "descent groups". Matrilineages comprise multiple matrilineal families sharing matrilineal descent. Patrilineages comprise multiple patrilineal families sharing patrilineal descent. Lineages are corporate groups. Many once owned (or still own) contiguous farmlands, domesticated animals and grazing lands, which may be collectivized to move crops and animals where needed to ensure productivity (note how this is less possible with private landholdings). Others held (or still hold) individually dispersed properties in lieu. However collective property was (or still is) arranged, one automatically has rights to their lineage resources. However, they do not have rights to the lineage resources of their other parent's lineage, nor do they share obligations and loyalties to that parent's lineage members. Lineages are exclusive groups, which exclude the majority of one's kindred network. Lineages tend to have ceremonies honouring their ancestors, often at spaces or landmarks, whose efforts granted each generation of members a means of survival: i.e. practice to collapse space-time. To reproduce the unilineal principle for membership, lineages must be exogamous, despite the fact that the majority of people in one's lineage are not of close genealogical relations and will not be recognized in one's kindred. Lineage names suffice for mutual identification. If a second rule is added to the marriage proscription – not being able to marry someone in the other parent's lineage, despite the vast majority of those people having no close genealogical

relations to the spouse seeker – then the marriage system is termed Crow (if matrilineal) or Omaha (if patrilineal). As an alternative to forming extended unilocal residential groups, virilocality – living at the location of a husband's patrilineage's settlement – or uxorilocality – living at the location of a wife's matrilineage's settlement – may instead be practiced. The difference is that individual conjugal families reside at descent group-owned settlements rather than forming extended residential groups at those settlements.

Many societies have even larger corporate unilineal descent groups – generally referred to as clans (replacing the mid-20th-century term 'sibs'). Matrilineal clans comprise multiple matrilineages – a segmented form of social organization termed "Crow". Patrilineal clans comprise multiple patrilineages – a segmented form of social organization termed "Omaha". Clans consist of so many people, that it becomes difficult to know the unilineal relations that every member shares. Thus, mythical ancestors may replace known ancestors. Regardless, clans are very real corporate groups. One's kindred network is dispersed across corporate clans but individuals only have rights in the clan they belong to. Sometimes clans also had (or still have) collectively owned resources, although in many societies they do not. Regardless, one only has obligations and loyalties to one's own clan – never to the parent's clan who is not a member of one's clan, and not to any other clans. Even in modern diasporas, refugees residing in developed nations often send remittances to support clan members or support visiting clan members – even if they do not know them. There may be ceremonies honouring the clan ancestors (mythical or known) but also quite common is for clans to sponsor ceremonies serving the wider society. Although a given clan member may have no known genealogical relationship to the vast majority of other members, there must be clan exogamy to preserve the unilineal principle for membership. If a second rule is added – not being able to marry someone in the other parent's clan, despite the vast majority of those people having no close genealogical relations to the spouse seeker – then the marriage system is also termed Crow (if matrilineal) or Omaha (if patrilineal). Clan names are useful for identification and knowing how one can or cannot interact with others.

Because they provide material means for surviving and mutual support for members, descent groups are important identities. The social reproduction of collective identities and social memories is also demonstrated in mortuary practices – specifically through cemetery affiliation. Time is collapsed in space through practice: descent group cemetery burials (embodied in space) are practices joining living members with group ancestors. Despite men's separation from kin after marriage through matrilocality or uxorilocality, men are returned to their matrilineal group's cemetery – with ancestors, becoming ancestors, among living member-agents. Or, despite women's dispersals caused

by patrilocality or virilocality, they are interred in their own patrilineal group's cemetery – with ancestors, becoming ancestors, among living member-agents. Clans may have cemeteries for their collective membership, lineages may have their distinct cemeteries and/or unilineal extended families may have their own cemeteries – illustrating how collective identities at different segmentary scales can be negotiated.

With greater gender inequality, some deviations to the above practices occur. For example, in matrilineal societies where men exclusively control the resources of their matrilineal descent group, then avunculocality – whereby each couple resides at the lineage or clan settlement of the husband's mother's brother – is more common than matrilocality. In this case, women are at their mother's husband's matrilineal group's estate during childhood, at their husband's matrilineal group's estate after marriage and only upon death are they united with their own matrilineal descent group members (Keegan 2009). With extreme gender inequality in patrilineal contexts, married women's membership and identity may be transferred to their husband's patrilineal family, lineage, and/or clan, which severs the women's social support they would otherwise get from their natal patrilineal groups by placing them under the authority of their husbands and husbands' brothers. Although bioarchaeologists often mistakenly assume that cemetery location reflects postmarital residence, only in the case of such membership transfers are women buried together with their husbands in patrilineal/patrilocal societies (Ensor *et al.* 2017), and the author has yet to find an ethnographic case where men's memberships are transferred to their wives' groups in matrilineal/matrilocal societies: cross-culturally they seem always to be members of, and be buried with, their matrilineal group.

Cognatic kinship differs considerably from unilineal descent. With bilateral descent, individuals strategically emphasize and de-emphasize different kindred relationships. Not all bilateral relations – all on fathers' side and all on mothers' side – may be useful for gaining access to resources or support. However, by emphasizing bilateral descent, all in the kindred network are *potential* sources of resources or support. Unlike unilineal descent, membership in corporate groups is *negotiated* using bilateral networks. There are no large corporate groups analogous to lineages and clans. Instead, the largest corporate groups are extended families. Corporate matrilineal or patrilineal families are sometimes associated with bilateral descent – with numerous networks of bilateral kindreds cast as nets across the groups. However, unlike the exclusionary membership, obligations and loyalties found with unilineal descent groups, bilateral descent offers rights and support in numerous corporate groups – a strategic system of social security under resource scarcity or unpredictability. One can claim rights and identities in multiple groups. The

disadvantage is that loyalties and identities are divided, which does not occur with unilineal descent groups.

Bilocality is rarely associated with matrilineal descent and not with patrilineal descent; it is far more commonly combined with bilateral descent. Unlike unilineal descent, membership in bilocal residential groups is not automatic. Through strategic negotiations, individuals remain in their natal residence, move to their spouse's natal residence, or manage their way into another residence via their or their spouse's kindred. Yet the extended residential group is a corporate resource-holding group whereby membership – and hence access to resources with which to make a living – is not based on descent; but rather, on negotiated residential membership. But rights may also be obtained in other corporate residential groups through kindred relations that, at the same time, divide loyalties. Corporate bilocal residential groups are what Lévi-Strauss (1982: 163–187) termed “houses” (Ensor 2013a: 15–16). Because there are no larger corporate groups with bilateral descent, bilocal residential groups are the only groups to sponsor ceremonies, drawing surplus from among their members' labour.

Unlike the group-based marriage prohibitions associated with unilineal descent groups, the only rule under bilateral descent is individual-based: no individuals may marry a close biological relation (e.g. biological siblings) – the ‘Complex’ marriage system. Beyond that individual-based rule, marriages are potentially random. However, there are usually strategic preferences: e.g. village exogamy to spread kindreds across villages for social security or village endogamy/cousin marriage to maintain residents' control over local resources. Another interesting difference with unilineal groups is that only under bilateral descent are spouses predictably buried together in family cemeteries (Ensor *et al.* 2017), granting marriage a role in identity.

Most Western readers find the above exotic. This is because, as proletarians, they own no productive property with which to make a living, instead relying on wages. They have no corporate kin groups. Neolocality – a couple establishing a conjugal family¹ residence away from parents and siblings – is instead a strategy well adapted to the individualizing effects of wage labour. Individual private property (e.g. small farm plots) is also associated with neolocality. In both cases, economic opportunities discourage kin groups larger than conjugal families. Neolocality is exclusively associated with bilateral descent, although those genealogical networks are merely symbolic. They provide little economic support, which is why recognized kindreds are smaller (‘genealogical amnesia’) than in other bilateral societies wherein people have something to offer. The miniature, noncorporate neolocal group is also temporary – it lasts less than half a generation before disintegrating – in stark contrast to corporate groups described above that reproduce themselves and

their estates across numerous generations. As the major form of residence emphasized in Western nations, neolocality gave rise to ethnocentric beliefs that 'nuclear families' are universal and that *kinship* is the subject of biological relatedness (Ensor *et al.* 2017). In this neolocal context, non-kin-based sources of identity are invented and manipulated (nationality, ethnicity, class, occupation, etc.). As capitalism spreads, as more populations' lands and other resources are monopolized by corporations, and as more people around the world find themselves dependent on wages, neolocality is rapidly replacing corporate kin groups and reducing membership to a lingering source of limited social support or mere symbolic identity divorced from new livelihoods.

Kinship and political economy

Social practices, including kinship strategies, do not exist in a vacuum. They are inextricably intertwined with broader political economic contexts (structure). Marxist ethnographers consistently demonstrate that kinship relations *are* social relations of production (e.g. Friedman 1984; Godelier 1984; Modjeska 1982; Rosman and Rubel 1971; Wolf 1982: 88–96). As described above, access to resources with which to make a living are organized by a set of kinship practices. Kinship provides the political economic historically contingent contexts (structure) engaging people with one another and determining their most important identities. The social reproduction of that kin-based political economic structure is through practice: through postmarital residence strategies, marriage prohibitions/preferences and space-time collapsing ceremonies to maintain collective identities and produce social memories.

As with all political economies, there are contradictions in kin-based social relations of production causing directionality toward crises. An example can be found in competitive marriage systems (Ensor 2003a, 2013a: 197–225, 2017a). Any corporate kin group must strive to perpetuate itself and its estate across generations. This requires attracting marriages to reproduce the next generation of members (and it imposes a conflict whereby one gender labours to reproduce their spouses' kin groups under unilocality while in all circumstances women are collectively objectified for procreation). Unilineal descent groups must practice exogamy to reproduce their organizational principles. Without prescribed marriage groups, any other descent groups provide pools from which to compete for marriages. If adding the Crow/Omaha prohibitions – no marriage between members of either parents' clans – all remaining clans are pools to compete for marriages. The most common way to compete is by prestige acquired through ceremony whereby guests from other groups take part, are feasted and given gifts. This requires clan members'

surplus production of foods, gifts and their participation in ceremonies, which may explain a need for incipient leadership but also the construction of ceremonial spaces and features. At stake is the perpetuation of the clan, which makes competition to attract spouses to the clan every member's business (requiring collective agency) in this political economic context.

As a competitive system, there are successful and less successful exogamous groups. Those whose investments in ceremonial surplus production succeed in attracting more marriages experience population growth whereas those who don't compete as well attract fewer spouses and either maintain population equilibrium or reduce in size, which explains why histories of individual clans' populations and ceremonial investments differ greatly. Disproportionate clan growth through ceremonial prestige has been linked to trends among the 19th-century Omaha (Ensor 2003a) at a time when they greatly adhered to Omaha marriage practices (Ensor 2003b) and among the prehistoric Hohokam (Ensor 2013a) described below.

Crises caused by this contradiction in the social relations of production potentially include disproportionate growth to the point that the largest, most successful clans can no longer find enough spouses from the less successful smaller clans (a crisis in exogamy, challenging the reproduction of unilineal descent) (Ensor 2003a, 2013a:197–225, 2017a). Potentially long before that inevitability, larger successful clans may surpass the productive capacity of their food production strategies (a crisis in resources) (Friedman 1984). Practice to socially reproduce the structure is no longer possible. Either subsistence intensification or a change to the social organization and marriage system are required. If the former does not occur, a change in the social organization or marriage system would entail a change in the entire political economy. Under such crises, agency-based manipulation of practice overwhelms structure to direct a social transformation leading to reconfigured group membership principles, identities, and social memories (Ensor 2013a: 197–225).

The Complex marriage system in societies with bilateral descent may also be competitive. Corporate unilineal families or corporate bilocal residential groups with a rule or preference for exogamy must compete for spouses since there are no specified marriage pools. Because these are much smaller groups than descent groups, the amount of surplus labour or ceremonial features would be less. They nevertheless need collective agency to competitively attract spouses to perpetuate themselves, leading ultimately to disproportionate growth.

Prehistoric kinship analysis

A historical method (relying on texts) to interpret kinship would impose onto

the deep past analogies with social types or direct historical analogy, with problematic assumptions of stasis that would fail to illuminate idiosyncratic group histories and agencies. A prehistorical method uses mid-level theory on material culture patterns linked cross-culturally to specific kinship practices, enabling *empirical prehistorical analysis* of kinship. Dwellings and settlement layouts are emphasized. Dwelling sizes and their spatial associations with other dwellings are demonstrated to have strong cross-cultural correlations to specific residential practices allowing inferences on practice at the smaller scale of social organization. Settlement layouts also have strong cross-cultural correlations to descent practices allowing inferences on practice at larger scales of social organization. Applying these inferences dwelling by dwelling, settlement by settlement and phase by phase is an empirical approach to construct a multi-scalar understanding of kinship practices over time, thus avoiding normative generalizations and historical impositions that obscure variable group social histories.

Having described elsewhere (Ensor 2003a, 2013b, 2016, 2017a, 2017b) and in significant depth (Ensor 2013a) the history and data behind the correlations, and due to length considerations, only a brief summary of the material patterns and corresponding practices is described here and in [Figure 10.1](#). Dwellings for matrilocal residential groups are almost always single structures with floor areas larger than 80 m² (Brown 1987; Divale 1977; Ember 1973; Ensor 2013a; Porčić 2010). Non-matrilocal dwellings are conjugal family dwellings (CFDs) with floor areas always less than 43 m² (Ensor 2013a). Multiple CFDs encircling a small plaza space in a planned, formal manner indicate a patrilocal residential group (the estate of a corporate patrilineal family) (Ensor 2013a). Multiple CFDs informally clustered together in an unplanned manner indicate a cognatic residential group (e.g. a corporate bilocal group) (Ensor 2013a). At the larger scale of social organization, settlement layouts whereby residential groups encircle a large plaza, along with ceremonial structures, are nearly always associated with unilineal descent groups (Chang 1958; Ensor 2013a). Settlement layouts with discrete segments of residential groups indicate either villages with multiple exogamous descent groups or the villages of exogamous clans having subclan lineage locations (Chang 1958; Ensor 2013a). If the unilineal descent group layouts are associated with matrilocal residential groups, or less commonly with bilocal residential groups, they must be matrilineal descent groups (Ensor 2013a; Pasternak 1976). If associated with patrilocal residential groups, they must be patrilineal descent groups (Ensor 2013a; Pasternak 1976). If lacking extended residential groups, but rather non-aggregated CFDs surrounding a plaza, then virilocality or avunculocality at the descent group scale is indicated (Ensor 2013a). Bilateral descent is nearly always associated with informal

settlement layouts whereby residential groups are scattered in an unplanned manner or widely distributed across the landscape (a *ranchería* settlement pattern) (Chang 1958; Ensor 2013a). Those residential groups may be matrilineal, patrilineal, or bilocal residential groups. If CFDs, rather than extended residential groups, are found distributed as such, then neolocality combined with bilateral descent is safely inferred (Ensor 2013a).

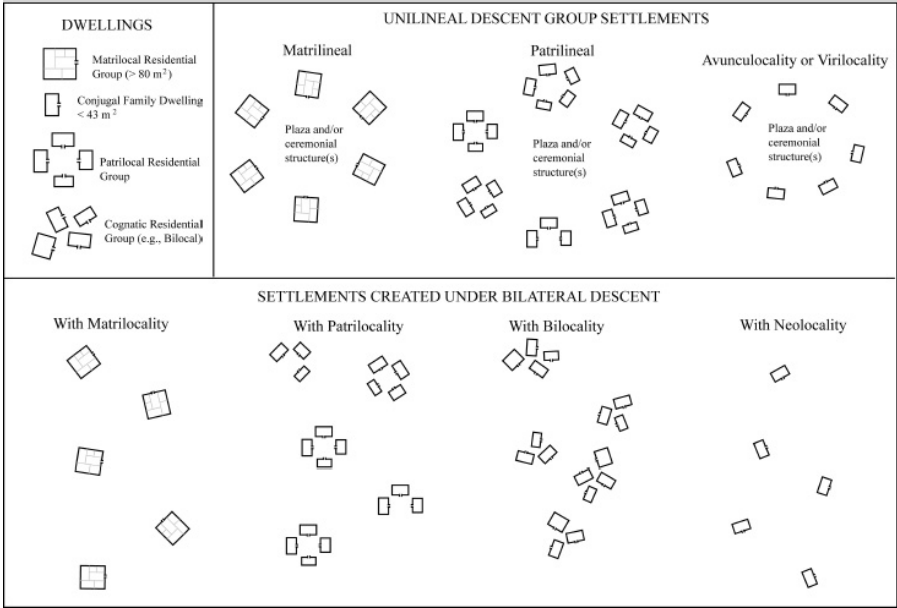


Figure 10.1 Idealized dwelling and settlement layouts cross-culturally associated with kinship practices

Cemeteries in pre-industrial societies nearly always indicate corporate groups: most often corporate kin groups (Carr 1995:165, 182, 190–191; Goldstein 1981; Saxe 1970). Cemeteries spatially associated with residential groups indicate identities with extended families. Cemeteries in communal spaces at descent group settlements, but not with individual residential groups, indicate primary identities with lineages or clans. A combination indicates the negotiation of identities between the two scales of group membership (Ensor 2013a). Like kin group-owned settlements, their plazas and their ceremonial structures, kin group cemeteries are embodied ancestral spaces at which practice collapses space-time relationality and identities.

Hohokam kin groups

‘Hohokam’ refers to the prehistoric ancestors of the Akimel O’odham (Pima) and Tohono O’odham (Papago) peoples, located in the Sonoran Desert region

from central Arizona, United States, into northern Sonora, Mexico. Major Hohokam settlements were along river floodplains where they built extensive agricultural irrigation networks, beyond which they exploited a wide range of wild plants and animals (e.g. Bohrer 1991; Fish and Nabhan 1991; Szuter 1991). During the phases covered herein, dwellings consisted of pithouses (houses constructed in shallow pits with extended entries). Because these were replaced frequently, their changing sizes and spatial arrangements are ideal for diachronic prehistoric kinship analysis. Ensor (2013a) used the kinship analysis described above to infer practices at four settlements, revealing that Hohokam kinship was differentially manipulated over 1450 years. Summarized here are the political economy (structure) and the histories (practice and agencies) of six kin groups at two settlements in the Phoenix Basin: Snaketown (Haury 1976; Wilcox *et al.* 1981) and La Ciudad (Henderson 1987a, 1987b; Rice 1987).

Political economic contexts

There were two major political economic developments in the Phoenix Basin during the periods of concern. Prior to those, during the Red Mountain phase (c. 0–350 ce), agricultural settlements were observed being colonized using neolocality and bilateral descent as a strategy to claim available lands and form bilocal groups. There was little symbolic craft production and no indications of ceremony. Having land was apparently sufficient to attract spouses.

Over the course of the Vahki, Estrella, Sweetwater and Snaketown phases (c. 350–750 ce) there was significant variation in kinship practices among settlements, and even within some settlements. There were increases in symbolic craft production and exchange (e.g. shell beads, pendants, bracelets, rings; stone ornaments; stone bowls and rings; etc.), increases in *hornos* (large roasting pits) and ceramic figurines for domestic uses to encourage fertility (Haury 1976: 266) or ancestor rituals (Stinson 2010). As more arable lands had been claimed, land alone was insufficient for attracting spouses, requiring competition through symbolic craft exchanges and feasting, alongside domestic use of figurines for ancestor veneration and group perpetuation (Ensor 2013a).

The Gila Butte, Santa Cruz and Sacaton phases (c. 750–1150 ce) were an era dominated by exogamous descent groups and a more competitive political economy. Within this context, basin-wide symbolic craft production and exchange intensified significantly and some descent groups built a diversity of ceremonial structures (capped mounds, crematoria, structures, etc.) and ballcourts (large berm-enclosed elliptical spaces) – for hosting large-scale intergroup gatherings – whereas figurines declined dramatically. Exogamous descent group competition through increasingly intensified and diversified

communal ceremony, ballgames and surplus exchange to attract spouses replaced domestic spirituality for group perpetuation (Ensor 2013a). That competition, in turn, culminated in disproportionate demographic growth among the exogamous groups. These broader political economic contexts set the stage for understanding how the six specific kin groups described here shaped their histories.

Six kin group histories

Kin Group 1 was a descent group at Snaketown lasting 800 years. In the Vahki phase (c. 350–525 ce), there were three or more large dwellings (over 80 m²) surrounding a plaza – the cross-cultural pattern for an exogamous matrilineal descent group (a matrilineage) with matrilocality (Figure 10.2). The lineage's estate included an irrigation canal and presumably fields. Thus, the settlement belonged to a corporate matrilineage, membership and rights to agricultural resources was through matrilineal descent, and the lineage was reproduced through exogamy and matrilocality. Cremation and inhumation burials were along the southern portion of the settlement (not associated with residences) signifying primary identities were with the lineage. Agency to attract spouses from other settlements was through plaza ceremonies, feasts (indicated by hornos) and exchanges (indicated by rich assemblages of crafts) but perpetuation was also through domestic ritual means (indicated by abundant figurines).

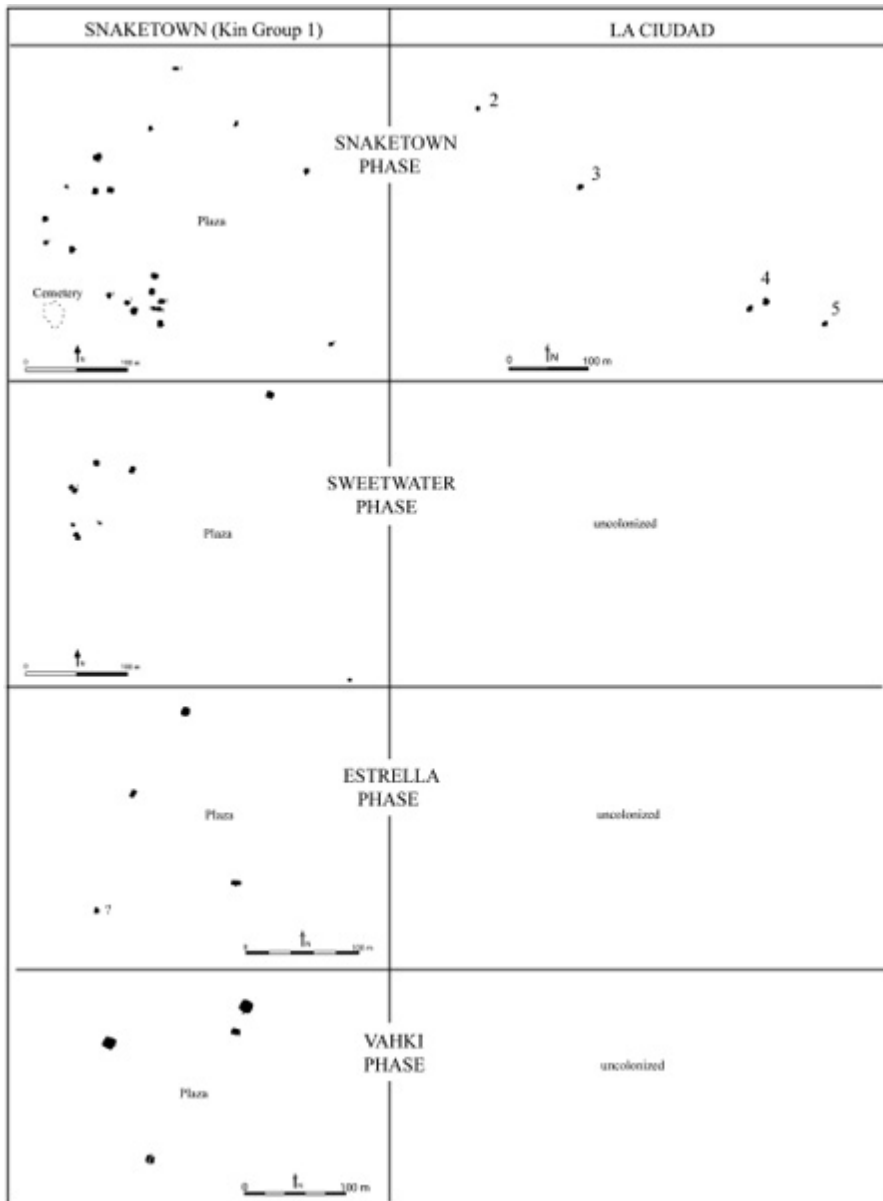


Figure 10.2 Snaketown and La Ciudad: Vahki-Snaketown phases

The Snaketown matrilineage replaced matrilocality with avunculocality in the Estrella phase (c. 525–600 ce) – as indicated by non-aggregated CFDs surrounding the plaza – and in the Sweetwater phase (c. 600–675 ce) with a combination of avunculocality and bilocality – as indicated by both CFDs and small informal aggregates of CFDs surrounding the plaza – which continued through the Snaketown phase (c. 675–750 ce) (Figure 10.2). Avunculocality implies men appropriating control of the matrilineage’s resources (in this case,

the canal and fields): manipulating residence without manipulating their matrilineal basis for membership and identities. Sweetwater phase cremation burials were in the south-eastern portion of the plaza where no dwellings were found, indicating principle identities were with the lineage. However, in the Snaketown phase, cremation burials were adjacent to residences in addition to communal spaces suggesting the first negotiation between lineage and sub-lineage family identities. There were no changes to the strategies to perpetuate the lineage, though both craft exchanges and the use of figurines increased in intensity.

La Ciudad was first colonized near the end of the Snaketown phase. The first settlers used neolocality to claim irrigable lands there. Four CFDs were widely spaced in a *ranchería* settlement pattern matching the cross-cultural pattern for neolocality and bilateral descent. Kin Groups 2, 3, and 5 were initiated by a neolocal residential group. Kin Group 4 was a small bilocal group represented by two to three informally aggregated CFDs (Figure 10.2). At the beginning of the Gila Butte phase (c. 750–875 ce), Kin Groups 2, 3 and 5 still maintained only one neolocal CFD and Kin Group 4 was still a small bilocal group. The settlement's canal was built at that time. Later in that phase, all four of these kin groups developed into bilocal residential groups. Kin Group 2 became the largest (Figure 10.3). The only cemetery was associated with Kin Group 5, illustrating primary identity with the residential group (as opposed to the settlement). All of the kin groups participated in the region-wide production and exchange of symbolic crafts.

Meanwhile, also in the Gila Butte phase, Kin Group 1 at Snaketown had transformed its membership principles from matrilineal to ambilineal. The settlement layout of a descent group was maintained but the residential groups surrounding the plaza included cognatic residential groups (each indicated by an informal aggregate of CFDs) and patrilocal residential groups (each indicated by a formal arrangement of CFDs around a small courtyard) (Figure 10.3). Although bilocal residential groups can be associated with matrilineal descent groups, patrilocality is not. Therefore, the descent group in this phase was interpreted as ambilineal (a “ramage”). Although a corporate exogamous descent group, people could negotiate exclusive membership and rights through *either* matrilineal *or* patrilineal descent (but not bilateral descent). This was at a time when exogamous descent groups were more numerous in the Phoenix Basin. The Snaketown ramage's collective agency to attract spouses is demonstrated by the additions around the ancestral plaza: a large ballcourt, a capped mound and a floor with linear arrangements of hearths for unspecified ceremony. Figurines became rare, illustrating greater reliance on competitive ceremony. There were two cemeteries: one in the centre of the ancestral plaza and one on the west side of the main residential area (though

not associated with any one residential group), indicating primary identities were still with the descent group.

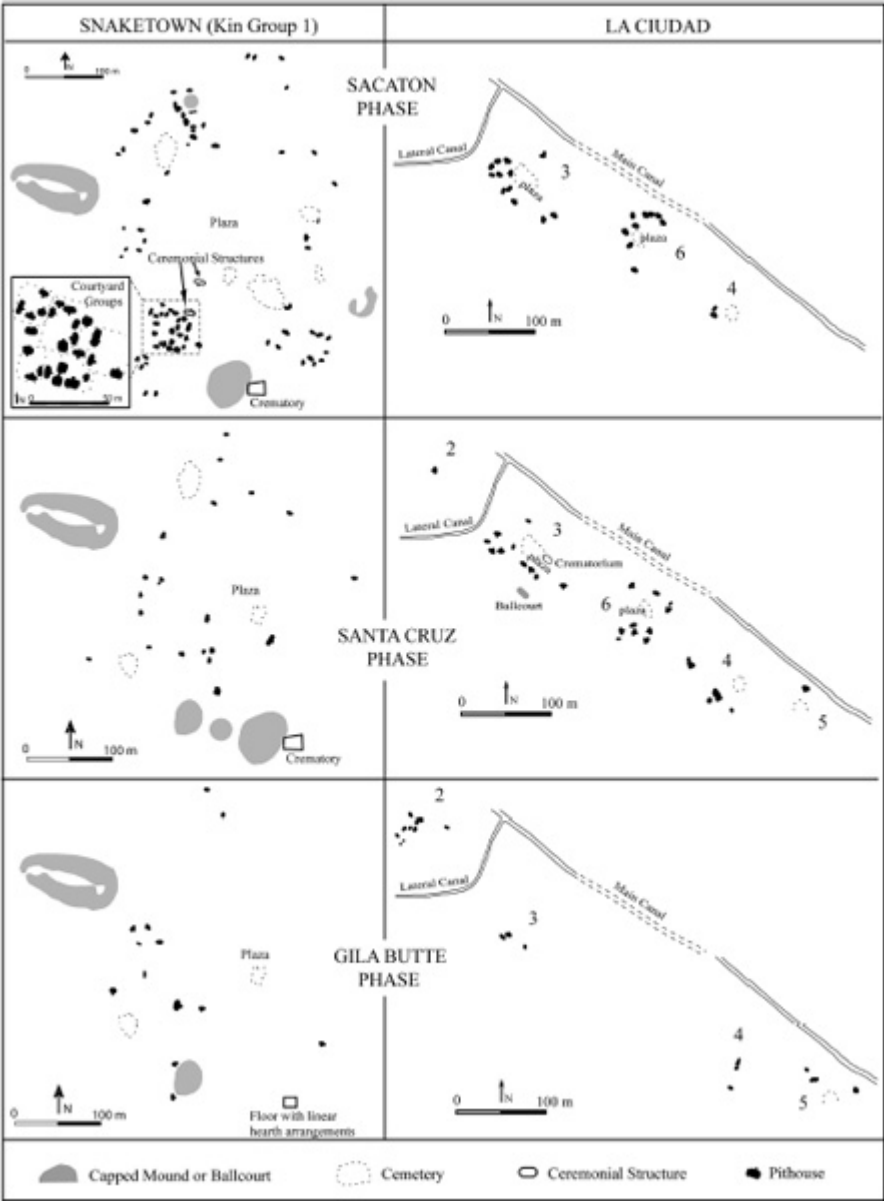


Figure 10.3 Snaketown and La Ciudad: Gila Butte–Sacaton phases

In the Santa Cruz phase (c. 875–975 ce), Kin Group 1 – the ramage at Snaketown – experienced marked population growth: a success that was likely the combined result of the ambilineal flexibility in maintaining members and attracting spouses, and the investments in ceremony to attract spouses begun

in the previous phase. Expanding on that success, two more capped mounds were added and a communal crematory was established around the ancestral plaza (Figure 10.3). The ramage had invested in more ceremonial features than any other kin group.

During the same phase at La Ciudad, Kin Group 2 was manipulated from a bilocal group into an exogamous patrilineal family (as indicated by five CFDs arranged around a courtyard indicating patrilocality). Kin Group 3 was manipulated from a bilocal group into a small patrilineage (indicated by at least one patrilocal residential group and virilocal non-aggregated CFDs surrounding a plaza). The plaza had a communal cemetery indicating primary identities were with the patrilineage. Kin Group 3 also invested in a small ballcourt. Together, Kin Group 3 may have successfully attracted more spouses than any other groups at La Ciudad. Kin Group 6 was a new group claiming a previously unoccupied location and was a second patrilineage – also exhibiting patrilocality and virilocality around a plaza and cemetery (Figure 10.3). This patrilineage had a crematorium, which was abandoned and replaced by one in Kin Group 3's plaza. By the end of the phase, Kin Groups 2 and 5 disappeared, Kin Group 4's population declined to only two conjugal families, the newer patrilineage (Kin Group 6) remained small and only Kin Group 3 with its greater investment in ceremonial features increased in population, illustrating successful and less successful group competition in the political economy (Figure 10.3).

Early in the Sacaton phase (c. 975–1150 ce), all estates at La Ciudad were abandoned by their kin groups. In contrast, Kin Group 1 – the descent group at Snaketown – experienced its most dramatic population growth. The descent group once again manipulated its membership criteria and internal social organization to adapt to a regional trend toward exogamous patrilineal groups. It became a patriclan with three subclan patrilineages indicated by three segments around the ancestral plaza. Each segment comprised multiple patrilocal groups. Each patrilocal group was indicated by CFDs surrounding a courtyard. Additional CFDs not surrounding courtyards were associated with each lineage location, and between the lineage locations surrounding the plaza (Figure 10.3). These varied residential practices suggest some identified only with the patriclan, others primarily identified with the subclan patrilineages (but not with patrilineal families within them), and others primarily identified with patrilineal families. More cemeteries were added, also implying increased negotiation of identities with these scales of patrilineal affiliation. Ceremonial structures in this phase surrounding the ancestral plaza included the large ballcourt, one capped mound, two large non-domestic pithouses, a second smaller ballcourt, the crematory, and a new small platform mound. Some were spatially associated with segments, indicating subclan lineage specializations.

Given the remarkable and unparalleled history of collective group investments in hosting ceremonies, continuous engagement in craft production and exchanges, and the strategic manipulation of membership criteria and residential practices leading to this descent group's success for 800 years, one might have expected continued growth. However, the clan abandoned its estate at Snaketown by the end of the Sacaton phase.

Conclusions

This chapter discussed how prehistoric archaeology (methods) can illuminate idiosyncratic agency-based social histories of corporate kin groups – the basis for relationalities, identities and social memories (emic histories). Whereas processualist evolutionism seeks sequential normative characterizations embedded within exogenous forces, historical perspectives empirically seek variability in endogenous practice embedded within political economic structure to observe collective agency. The empirical findings in the case study defy normative models for Hohokam kin groups. Individual group histories with practices to reproduce and manipulate memberships in their efforts to perpetuate and grow in a competitive political economy were neither uniform nor static. Strategic agency is thus seen in the ways groups variably developed and responded to the same increasingly competitive political economy in which they were enmeshed – for example, the frequent manipulating of membership criteria and investments in ceremony by Kin Groups 1 and 3, which led to their successful growth – whereas other kin groups maintaining past practices and investing less in ceremony declined in population. There were also idiosyncratic group histories of identity negotiation within the different scales of descent group organization. In addition to daily and seasonal time (not addressed here), the Hohokam in the phases covered recognized 'lineage time', which was clearly materialized in ancestral plazas and plaza-cemeteries where space-time was collapsed into places joining group ancestors with descendants while events there and at the successful groups' ceremonial features and ballcourts also produced collective social memories. Within some groups these were uniform and unchanged, within others they were varied and frequently manipulated. As illustrated, empirical prehistoric analysis of diachronic data comparing identifiable kin groups are compatible with a historical perspective on structure and practice making long-term histories of relationality, agency and social memories approachable.

Note

1'Conjugal family' is preferred over 'nuclear family' because the latter inaccurately assumes a universal biological building block for kinship.

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Part III

Objects and making history

Hyperobjects and prehistory

Graham Harman

Hyperobjects

It is well known that of the many academic books published in any given decade, only a small number remain relevant in later generations, once intellectual fashions have shifted. While it is notoriously difficult to predict which works will prove unusually durable, I would like to begin by placing a bet on Timothy Morton's (2013a) *Hyperobjects* as a survivor deep beyond the present period.¹ A collection like this one, focused on the theme of prehistory, can hardly avoid coming to grips with the topic named by Morton's title. Hyperobjects, he tells us on his very first page, are "things that are massively distributed in time and space relative to humans" (1). This includes many entities produced or co-produced by humans, such as plutonium, global warming and plastic bottles. It also includes the slow-burn background features of the natural world, ranging from the life cycle of stars to the basic geological processes of the earth. 'Hyperobject' is certainly a catchy term that others have picked up and repeated; Morton's uncanny talent for coining neologisms has been noted by others before me. But more than this, Morton gives us a preliminary list of five key features of hyperobjects: (1) viscosity, (2) nonlocality, (3) temporal undulation, (4) phasing and (5) interobjectivity. Let's give a brief account of each of these terms before asking how they might apply to a new consideration of prehistory.

Viscosity

Hyperobjects are *viscous*, meaning that we are already entangled with them before we have begun to speak of them.² We are unable to take any sort of ironic distance towards hyperobjects, but are sincerely intertwined with them whether we like it or not. Morton shares a brief but poignant anecdote from

the early years of this century: “In 2002 three wandering woodcutters in a north Georgian forest near the village of Liya discovered two small cylinders of radioactive strontium-90 that kept them warm for a few hours’ sleep before they succumbed to radiation sickness and burning” (33–34). Since the dropping of the first atomic bombs on Japan in World War II and the American-Soviet Cold War that followed, the human race has grown familiar with the production of weapons and wastes that far surpass an individual human lifespan. Nonetheless, we continue to produce these materials for military purposes, and their expanded use as a source of power may even be the only way to prevent climate catastrophe, despite the risk of an accident or terrorist assault on our nuclear facilities. Yet the fissile materials of the nuclear age were obviously not the first hyperobjects, even if they were among the first to draw our collective attention to things that are massively distributed in time and space relative to humans. Morton again:

there are radio-thermal batteries aboard [the space probes] Voyager 1 and 2, which are now exiting the Solar System, passing through the heliosheath, a hyperobject consisting of slowed, turbulent solar winds formed into million-mile-wide bubbles as they interact with the interstellar medium.

(34)

But even the heliosheath is a relative newcomer, dating back to less than five billion years ago. A much older example can easily be named: “Light itself is the most viscous thing of all, since nothing can surpass its speed” (32).

Light and the heliosheath are fine examples of what the viscosity of hyperobjects *does not* mean: namely, our entanglement with hyperobjects is *not* always reciprocal. So far, at least, humans have no effect whatsoever on the speed of light or the structure of the heliosheath. And even in cases where we humans do play a causal role, such as the production of strontium-90 cylinders, the ozone hole or humble plastic bags, the fact that we ourselves helped produce something is largely irrelevant: all of these hyper-durable human creations may well last for thousands or millions of years, regardless of our role in producing them and our efforts to lessen their impact. This is probably why Morton states that the increasing role of hyperobjects is a sign “that we have exited modernity” (36). To my mind, Bruno Latour has given the best definition of modernity that we have (Latour 1993). René Descartes, that great mascot of modern philosophy, famously argued for a taxonomy of three separate *kinds* of substance: the finite substances of thought and physical extension, along with God, the sole infinite substance (Descartes 1993). Since modernity has gradually dispensed with God, we are now left with just two

substances: the mental and the physical, which might also be renamed the cultural and the natural. Latour shows that modernity is an attempt to *purify* these two spheres from each other, so that 'social and cultural factors' are not allowed to interfere with the scientific truth about nature, while 'nature' is often thought to have nothing to do with the supposedly arbitrary projection of personal perspectives and viewpoints said to be characteristic of the social sphere.

In this way, the human subject becomes 'alienated' from a world that is something basically Other, and ironic distance becomes the thinker's attitude of choice towards reality. Yet we should beware of false solutions to this predicament. One of them is the failed attitude that Quentin Meillassoux has scathingly critiqued as 'correlationism' (Meillassoux 2008). According to this attitude, we cannot think of thought without world or world without thought, but only of a primordial correlation or *rapport* between these two key zones defined by modernity. But its supposed innovation is false, since even while correlationism glues Descartes's thought and world together, it *accepts* the modern dogma that thought and world are the two fundamentally different spheres of the cosmos that somehow need to be bridged, or are always already bridged. Whether someone thinks the subject-object divide is a true philosophical puzzle or not, both opinions assume that these are the two basic kinds of things that exist. We have – invariably *human* – thought on one side of the fence, and all the trillions of other entities in the universe on the other. In passing, this is why I think that Maurice Merleau-Ponty's originality as a philosopher is highly overrated: for he too says that the world looks at me just as I look at it, which again assumes – with Descartes – that I and the world are the two basic zones of reality that might somehow look at each other (Merleau-Ponty 1968). What about different parts of the world looking at each other? Here Merleau-Ponty is just as silent as everyone else.

An even more extreme solution to the modern dualism can be found in the writings of Karen Barad, who uses the word 'entanglement' in a far more drastic sense than that of Hodder (Barad 2007). Drawing on the so-called Copenhagen interpretation of quantum theory, Barad sees thought and world as so deeply intertwined that neither can pre-exist the other, making reality as a whole nothing but the correlate of the thinker who perceives it. Some of Latour's followers make a similar mistake. Latour notes that it is difficult to classify many entities as either natural or cultural, given that so many contemporary objects are 'hybrids' made up of both natural and cultural elements simultaneously: the ozone hole, artificial organs and genetically engineered corn. But some of his readers jump to the mistaken conclusion that *all* objects are necessarily hybrids, which again gives us the failed solution of simply gluing Cartesian thought and extension together, rather than denying

from the start – as should be done – that human and world are two separate and equal zones of reality.

A better way to confront the limitations of modern Cartesian ontology is as follows. First, it must be replaced with a ‘flat ontology’, meaning one that initially treats all objects as standing on equal footing. Venus is an object, as are neutrons, strawberries, crystalline spheres, thinking human subjects and the fictional sailor Popeye. Here humans are just one object among many others, and not – as for modern philosophy – a full 50% of the cosmos. Second, we must note that every object is a compound built of parts. This has a pair of implications: (1) every object results from the interaction of smaller ones and (2) conversely, every interaction of objects results in a larger object. Hydrogen and oxygen form water, just as two individuals form a marriage or multiple nations form the European Union. Third and finally, not all relations between two components of an object are reciprocal. It is quite possible for one object to be highly dependent on another without the reverse being the case, even though the two are in relation. The sun is a fine example. Earth life is utterly dependent on the sun, without the sun reacting to us in any way, other than in the most trivial Newtonian sense that our bodies must exert a tiny gravitational pull on that massive star. Morton’s concept of hyperobjects applies especially well to those cases in which humans have little to no reciprocal influence on the non-human entities that control our destiny.

And this is what leads him to endorse *sincerity* as an alternative to irony:

The sticky mirror demonstrates the truth of what phenomenology calls *ingenuousness* or *sincerity*. Objects are what they are, in the sense that no matter what we are aware of, or how, there they are, impossible to shake off. In the midst of irony, there you are, being ironic.

(35)

Hipsters can be as ironic as they please, deliberately wearing a passé fashion or growing an absurdly outsized moustache with waxed-up curls at either side in the manner of the 1890s (incidentally, I enjoy these recent trends). But these same hipsters can hardly get away with ironically mocking their own possession of a backbone and a pancreas and a specific blood type, or their dependence on an oxygenated atmosphere. There may be occasional ‘gallows humour’ in the face of global warming and other hyperobjects, but *irony* will never be plausible when confronted by objects with which we are asymmetrically entangled. If existentialism gave us an ethics of anxiety, alienation, and radical freedom, the best ethics for the age of hyperobjects is an anti-existentialist ethics of sincerity.

Nonlocality

From our discussion of viscosity, we have seen that humans are entangled with hyperobjects to the point of being dominated by them. Global warming is an obvious case in point. But Morton notes something unusual about this domination:

I do not see global warming as such. I see this brilliant blade of sunlight, burning the top of my head as I watch it with half-closed eyes reflecting off the burnished, sapphire surface of the solar panels... [G]lobal warming is not here. Hyperobjects are *nonlocal*.

(38)

At question here for Morton is the very nature of causality. Nonlocality is a term he imports from quantum theory, where it describes the strange fact that particles can be entangled in such a way that no matter how far apart they have diverged in space – there may be light years of distance between them – once a property of one of the particles is determined, the same property of the other particle will be determined as the opposite. Ever since Einstein first formulated special relativity, there is no reason to believe that these particles can exchange such information at *infinite* speed. Therefore, the only seeming option is that the particles are connected in some fashion despite their total lack of proximity in space. Morton argues that the same nonlocality holds for complex causal systems such as the appearance of cancer:

I have no idea what it was that I ate, or whether it was that field I walked through in Norfolk, England, the air redolent with the pungency of pesticide... . Perhaps it was some less vividly recalled moment. Yet statistics tell me, obliquely, never able to point to a direct causal link, that my cancer may have come from an endocrine disruptor.

(38–39)

He links this idea with the history of philosophy by concluding that “hyperobjects seem to inhabit a Humean causal system in which association, correlation, and probability are the only things we have to go on, for now” (39). And though Hume is usually remembered as a practically minded modern sceptic, the roots of his philosophy go back through the mediaeval thinker Nicolas d’Autrecourt to some of the most powerful speculations of early Islam. I speak of the ‘occasionalist’ notion that God (perhaps the ultimate hyperobject) is the only causal mediator in the universe – so that I cannot lift a glass of water, and fire cannot burn cotton, unless God intervenes and performs both actions directly (Fakhry 2013; Nadler 1996).

Nonlocality obviously entails action at a distance, and this is what Morton thinks is at play in the sort of non-linear causation found in global warming and carcinogenic probabilities. But if even vaguely pressed, Morton would acknowledge that the same is true even of linear causation, as in the paradigmatic case of two billiard balls colliding directly. Following the principle of Object-Oriented Ontology (OOO) that all objects withdraw from direct contact with one another, Morton would explain that even apparent cases of direct physical collision are forms of action at a distance carried out through a mediator. I say so with confidence because this is one of the chief theses of his book *Realist Magic*, which appeared along with *Hyperobjects* in 2013, though from a different publisher (Morton 2013b). Morton's second thesis in *Realist Magic*, following directly from the first, is the notion that *aesthetics* is the broader name for situations of indirect contact, and that therefore causation itself can be viewed as an aesthetic phenomenon. The argument runs roughly as follows. Aesthetic phenomena occur whenever an object is in tension with its own properties, but in such a way that while those properties are perfectly visible or audible or distinctly imaginable, the object itself seems to be a ghost withdrawn from direct human access (Harman 2018). Accordingly, aesthetics gives us a shining example of indirect access to a missing object, one that also applies to causation more generally. In Morton's own words: "Art sends us information from another place. Snow falls in a poem, but it is not really falling" (53). He goes so far as to see art's information-at-a-distance at work in the peculiar capabilities of certain animals. For instance: "tiny, quantum-scale magnets in birds' eyes were found to guide birds, not physical electromagnetic fields but rather aesthetic (nonlocal) forms of those fields" (43). Stated differently: "a bird detects the quantum signature of an electromagnetic wave, not the wave itself, by means of a quantum scale magnet in its eye. Birds perceive not some traditional material lump, but an aesthetic shape" (45).

Sigmund Freud famously said that the human species had to endure two great humiliations at the hands of science: the first when Copernicus established that the earth was not the centre of the universe, and the second when Darwin proved that humans are just another species of animal. The punch line, of course, was that Freud's own psychoanalysis was supposed to provide the third such humiliation by showing that the conscious mind is not even in control of its own mental sphere, but was dominated by a more powerful unconscious. Morton, focusing on the 19th century, replaces the Copernican humiliation with that of Karl Marx, but adds some contemporary concepts of his own as well: "To those great Victorian period discoveries, then – evolution, capital, the unconscious – we must now add spacetime, ecological interconnection, and nonlocality" (47). He links these three vividly as forms of

nonlocality:

Stop the tape of evolution anywhere and you won't see it. Stand under a rain cloud and it's not global warming you'll feel. Cut your coat into a thousand pieces – you won't find capital in there. Now try pointing to the unconscious. Did you catch it?

(48)

Though we cannot catch the unconscious any more directly than anything else, Morton does venture briefly into a new interpretation of psychoanalysis in terms of hyperobjects. Recalling Wordsworth's traumatic experience of a mountain as he rowed away from shore in a stolen boat, Morton proposes that

the self ... is nothing more than the history of such wounds and the secretions we exuded to protect ourselves from them. Freud puts it this way: the ego is the "precipitate of abandoned object cathexes", like a mystic writing pad whose underlying wax is inscribed with everything that was ever drawn on it.

(51)

But whereas Freud tends to view these traumas in terms of interactions between humans, Morton wants to root psychoanalysis in a wider cosmic setting:

we can expect human egos to be pockmarked by hyperobjects. We are all burnt by ultraviolet rays. We all contain water in about the same ratio as Earth does, and salt water in the same ratio that the oceans do. We are poems about the hyperobject earth.

(51)

Temporal undulation

In the years 1715–1716, a remarkable correspondence took place between the philosopher G.W. Leibniz and the English philosopher and clergyman Samuel Clarke, who was acting as a surrogate for the mentally unstable Isaac Newton: often a paranoid schemer when engaging with his intellectual enemies (Leibniz and Clarke 2000). While Clarke defended the Newtonian view of space and time as empty containers existing independently of the objects they contain, Leibniz prefigured Einstein by claiming that space and time are produced by the relations between entities. Morton's chapter on temporal undulation makes it clear that he sides with Leibniz in this particular debate. Every object exists at its own spatial and temporal scale, with no scale being privileged over the

others. Any human who has failed in swatting a mosquito or grabbing a toy from the mouth of a dog is familiar with the experience that we seem to be moving in slow motion compared with these creatures. Conversely, a human lifespan must seem like a transient flicker if it could be viewed by a sequoia tree or an ancient mountain. In spatial terms, it is often the case that we move through foreign countries as tourists much faster than we do when living there. How often I have been shocked by European tourists in America who visit New York, Florida, Chicago, Los Angeles, and San Francisco in the span of just over a week. In the meantime, speed or slowness of transportation constantly changes the apparent size of geographical space. Several times per month, I board a flight in Los Angeles and wake up a few hours later in Chicago, half a continent away. If I were instead to drive a car from Jacksonville, Florida to Buffalo, New York, it would be a much longer trip: 15.5 hours, according to Google Maps. But the distance from Jacksonville to Buffalo happens to be the same as that between the southern and northern borders of the Democratic Republic of Congo, a journey that is said to require at least a month, if one even completes the trip alive.

Morton's chapter really ought to be titled 'Spatio-Temporal Undulation', since much like Leibniz and Einstein he holds that both space and time are generated by the force of objects themselves: "Spacetime isn't an empty box, but rather an undulating forcefield that emanates from objects" (64). One of his most memorable examples concerns the sound art piece *Air Pressure Fluctuations* by Felix Hess, who recorded the sounds of Manhattan with microphones stuck to the windowpane of his living room. After recording five days and nights of sound, he plays the recording at 360 times its actual speed, allowing him to enter the world of a hyperobject:

Traffic begins to sound like the tinkling of tiny insects. A slow, periodic hum begins to become audible... [which turns out to be] the standing wave caused by pressure changes over the Atlantic Ocean. I am hearing the sound of the air over the Atlantic.

(56)

Though we think of the Florida Everglades as a timeless slice of nature now endangered by human clumsiness, this vast swamp has only lasted for approximately 5,000 years (58). Morton gives another vivid example:

I start the engine of my car. Liquefied dinosaur bones burst into flame. I walk up a chalky hill. Billions of ancient pulverized undersea creatures grip my shoes. I breathe. Bacterial pollution from some Archean cataclysm fills my alveoli – we call it *oxygen*.

The example shows that we do not live in any particular time, but in a world organized according to numerous fast and slow rhythms generated by the objects that surround us.

Another important aspect of hyperobjects is that despite being very large, they are not infinite. This is precisely what makes them so stupefying:

Infinity is far easier to cope with. Infinity brings to mind our cognitive powers... . But hyperobjects are not forever. What they offer instead is *very large finitude*. I can think infinity. But I can't count up to one hundred thousand.

(60)

Morton now proposes an interesting historical thesis, tracing the discovery of hyperobjects to the Islamic thinker al-Razi (854–925), whose name can also be transliterated as ar-Razi. In Morton's colourful words:

Ar-Razi writes that gold, gems, and glass can disintegrate, but at much slower speeds than vegetable, fruits, and spices... . How much would a ruby degrade between the time of Hipparchus and the time of Galen? So the degradation rate of a celestial body might be to that of a ruby as that of a ruby is to that of a bunch of herbs.

(66)

Remembering Morton's own example of Felix Hess's recording of the air pressure over the Atlantic, we should probably trace the birth of hyperobjects as far back as pre-Socratic times, when Pythagoras supposedly spoke of the 'music of the spheres', tones emitted by the planets in their movement but too familiar to us as background noise ever to be noticed consciously. Nonetheless, it is hard not to admire al-Razi's foresight in destroying the tired ancient dualism between corruptible and eternal, thereby opening an entire new realm of objects that decay *very slowly*.

Morton's ethical stake in hyperobjects was mentioned earlier: given our complete entanglement with them, ethics becomes a matter of sincerity and involvement rather than the sort of transcendent critique, irony, and smug debunking favoured as a rule by recent intellectuals. As a supplement, he brings the fascinating ethical work of Alphonso Lingis (1998) into the picture. For Lingis, the limitation of Kantian ethics is that the categorical imperative only pertains to our treatment of fellow human beings as ends in themselves and not as means to an end (Kant 1993). But as Lingis sees it, *all* objects exert ethical imperatives on us, though we can choose to disobey them just as we do

when encountering human beings. I can fail to stop the onset of a forest fire; I can sadistically crush a penguin chick beneath my boot. But even in these cases I feel the imperative telling me to do otherwise, and simply enjoy the coldness of my perversity in flouting the imperatives in question. There is something ethically wrong about wearing headphones and listening to pop music while wandering through a beautiful Kyoto temple as snowflakes descend from the sky. It is wrong to chug an expensive bottle of wine as if it were a sports beverage, or to eat gourmet chocolate alongside a generic brand of potato chips. But while the imperative is in every case impossible to state definitively in prose terms, Morton notes the heightened difficulty of the imperative posed by hyperobjects, which, “because of temporal foreshortening... [are] impossible to handle just right. This aporia gives rise to a dilemma: we have no time to learn fully about hyperobjects. But we have to handle them anyway” (67). We are compelled to make ethical decisions about beings that exist at completely different spatio-temporal scales from our own. And while this has always been the case to some degree, the current era of human history forces us to think of these problems constantly.

Phasing

Hand in hand with the topic of undulation, we find that of phasing:

My sense of being “in” a time and of inhabiting a “place” depends on forms of regularity. The periodic rhythms of day and night, the sun “coming up”... . Hyperobjects are *phased*: they occupy a high-dimensional *phase space* that makes them impossible to see as a whole on a regular three-dimensional human-scale basis.

(69–70)

The concept of undulation taught us that space and time are dictated not by us alone, but by the objects with which we deal. Phasing completes the picture by reminding us that even when we deal with objects, we do not deal with them in their entirety, but only with a range of appearances that they emit in our direction: “That’s why you can’t see global warming. You would have to occupy some high-dimensional space to see it unfolding explicitly” (70). This discussion of phasing puts Morton in position to offer a devastating critique of the presently fashionable notion that the world is not made up of static, frozen objects but of a continuous flux or flow. The amusing polemical adjective that Morton has coined for theories of this sort is ‘lava-lampy’. His original way of critiquing lava-lampy philosophies is to argue that they are overly concerned with the various phases through which reality passes and not attentive enough

to the underlying stable structure of the phase spaces of which all these appearances are derivative. In his own words: “What we experience as a lava-lamp fluidity ... is precisely a symptom of our less than adequate perception of higher dimensions of structure, which is where the hyperobjects live” (70). Stated differently, these lava-lampy models “simply turn the static picture into a flowing picture. [But] something remains the same: the sense of time as a container” (72). As we have seen, Morton’s alternative to the container model of time and space is to suggest that both are generated by objects. He puts this a bit differently from Leibniz: “Time is now radically inside objects, rippling through them as I argued a while back. And space is inside objects, differentiating their parts from one another” (73).

Interobjectivity

We now come to Morton’s ultimate feature of hyperobjects: interobjectivity. In some ways, the turn towards interobjectivity is the entire point of OOO. It has never been especially difficult to find philosophies that make room for something ‘beyond’ the given, just as OOO does. Kant’s things-in-themselves are not directly knowable, and neither is Schelling’s ‘ground’ or Schopenhauer’s ‘will’. Heidegger’s ‘being’ withdraws beyond all conceptual access, and is at best visible in rare moments of *Angst*. Levinas is the master theorist of the ‘Other’, and Jean-Luc Marion tries to root phenomenology in the depths beneath perception by saying that phenomena are ‘saturated’. The Lacanian ‘Real’ points as well to a breakdown of the visible symbolic order. These are just some of the names most often invoked to claim that OOO is saying nothing new, and that everyone has already known that what we encounter on the surface of the world is not everything. Yet there is a limitation to all of the theories just mentioned, and it is the very limitation to which OOO objects. Namely, it is not enough to say that there is something deeply inaccessible *to humans*, which was the primary flaw in Kant’s conception of the thing-in-itself. We must also account for what happens when one non-human object meets another, and this is what OOO does best. ‘Interobjectivity’, a term Morton credits to the circles surrounding Ken Wilber (84), is a good name to remind us that objects interact among themselves even when we humans are not watching: “Think of intersubjectivity as a particular instance of interobjectivity with which humans are familiar. In other words, ‘intersubjectivity’ is really human interobjectivity with lines drawn around it” (81–82).

Interlude: Morton and McLuhan

In passing, I want to note some significant points of convergence between Morton's concept of hyperobjects and Marshall McLuhan's (1994) theory of media. The celebrated thesis of McLuhan, "the medium is the message", means that explicit surface content is never what is truly at stake in any medium. Far deeper than the question of good or bad books is the fact that we are reading books at all, rather than listening to bards working from oral tradition or reciting a scroll aloud to a group of friends in ancient Greece (McLuhan 2017). But as a rule we are not aware of the effects of the medium we inhabit, and thus we are occupied instead with the varying content that unfolds within that medium. Here McLuhan would seem to endorse the *phasing* that Morton notices in hyperobjects, even if the language of 'attractors' is probably a less useful metaphor for media than it is for hyperobjects. Furthermore, since we are dominated by the media we inhabit without knowing it, these media are certainly *viscous* in the same sense that Morton attributes to hyperobjects. It is equally clear that McLuhan would be on board with Morton's 'temporal undulation', the notion that space and time are generated by objects rather than being pre-existent empty containers. McLuhan views the uniformity of space-time as the rather late production of Western visual civilization amidst the post-Gutenberg world. His media are what give shape to space and time, rather than space and time containing media in the manner of an empty vessel. For similar reasons, it is easy to imagine McLuhan endorsing Morton's 'non-locality'.

The major sticking point, however, comes with *interobjectivity*. McLuhan famously viewed media as 'extensions of man': which happens to be the subtitle of his most famous book. This anthropocentrism becomes even clearer in *Laws of Media*, a book posthumously completed by McLuhan's son Eric (McLuhan and McLuhan 1992). In this book they introduce their conception of the tetrad, a fourfold of enhancement, obsolescence, retrieval, and reversal that the McLuhans ambitiously hold to apply to almost anything under the sun: from technological devices to rhetorical figures to the teachings of psychoanalysis. But as mentioned, their theory of the tetrad only applies to *almost* everything. Namely, the McLuhans insist that their tetrad applies only to human artefacts and to whatever else might be conceived in terms of language. Bird's nests and beaver dams are excluded, not to mention protons, as well as the relations between protons when no humans are looking. Despite my profound admiration for McLuhan's theory of media, it belongs on our previous list of post-Kantian theories that posit a deep and inaccessible beyond only when humans are there to be haunted by it. Like other such theories, it simply assumes that object-object interactions are already handled exhaustively by the natural sciences. In this respect, Morton's category of 'interobjectivity' enables his hyperobjects to make an advance beyond

McLuhan's theory of media.

But there is one other important concept of McLuhan's that we should introduce here due to its direct relevance to Morton's own work. I refer to the controversial distinction McLuhan makes between 'hot' and 'cold' media. Hot media are saturated with detail and promote assertive group action, while cold media provide minimal information and thus are able to have a hypnotic effect on participants. McLuhan likes to point out that Hitler thrived in a hot medium (radio) but would probably have cut a ridiculous figure in a cold one (television). He draws on the old legend – whether apocryphal or not – that in the famous Kennedy-Nixon debate, Kennedy was deemed the winner by television viewers while Nixon was chosen as the victor by those who heard the debate on radio instead. Yet as I have explored in an earlier publication, there is a paradox in how McLuhan sets out this topic (Harman 2012). In one sense he does as explained above, classifying various media as *inherently* hot or cold. But in another, he holds that every medium tends to undergo increased heating during its lifespan, until it gradually reaches the point where it 'overheats'. It becomes too saturated with information, and flips into its opposite. For example, cars begin as a tool for personal convenience and time-saving, but eventually overheat through the excess proliferation of cars. We find ourselves in the polar opposite of the time-saving world we had expected, and enter a wasteland of traffic jams, futile hunts for parking spaces, insurance and repair costs, and so forth. Eventually the world of automobiles will flip into something rather different. Only when we reach the point of overheated crisis just prior to this flip do we begin to recognize the most crucial features of the medium we have been inhabiting. This is Morton's argument as well: objects have been hyperobjects all along, but only with the appearance of such dangerous examples as nuclear waste and global warming do we gain explicit awareness of this fact.

Hyperobjects and prehistory

We come now to the theme of prehistory, wondering how Morton's hyperobjects might apply to this topic, which is already studied in detail by a number of professional fields: archaeology, palaeontology, palaeobiology, cosmology. Since Morton is a prominent ecological theorist, a majority of his examples of hyperobjects apply to objects likely to dominate the *future* of the human race (Morton 2007, 2010). Yet there is no question that prehistory, which by definition lies behind us rather than in front of us, also concerns "things that are massively distributed in time and space relative to humans" (1), which we recall was Morton's definition of hyperobjects on the first page

of his book. And there is one important feature that the study of prehistory shares in common with speculations as to possible scenarios for the future of the human race, or other entities of interest. That common feature is their relative paucity of detail compared with recorded human history up to the present. The prehistorian can only determine general ranges of dates for the appearance of flint tools, domesticated animals, the use of fire, the wheel, and other such fateful artefacts. The same holds for the futuristic speculator, who could easily be off by millennia when projecting how long it will take humans to achieve physical immortality, create artificial intelligence, or be capable of interstellar travel. In short, both prehistory and future speculation are ‘cold media’, to use McLuhan’s term.

Though this may seem like an inherent disadvantage, the opposite is closer to the truth. The lack of distracting detail often allows us to focus on the basic structural features of a situation in a more insightful manner than is usually the case. For this very reason, computer simulations of reality are often more fascinating than reality itself, since only the most crucial and interesting aspects of our world are preserved in a good simulation. Seen from this standpoint, we could say that hyperobjects are not just objects massively distributed in space and time with respect to humans. They are also cold media that draw our attention to the basic features of objects that guide extremely long-term trends. For archaeologists there are Stone Age, Bronze Age, Iron Age. For the speculative cosmologists Fred Adams and Greg Laughlin, there is the Primordial Era of the universe, then the current Stelleriferous Era, to be followed by the Degenerate Era, the Black Hole Era, and finally the Dark Era (Adams and Laughlin 1999). And while any present-day historian of philosophy would surely be mocked for offering this sort of schematic classification of important thinkers from pre-Socratic Greece up to the present, this is precisely the kind of ordering that will eventually be needed to make sense of our discipline. Thinking in terms of broad historical phases is not just a sloppy first approximation, but the end goal for any understanding of the ‘big picture’ that is able to avoid being sidetracked by trivialities.

But to what extent do the major features of hyperobjects also apply to prehistory? Morton demonstrates that hyperobjects are *viscous*, in the sense that we are entangled with them and cannot easily free ourselves from them. It is surely true that the objects of prehistory are viscous as well. Precisely because of the relative scarcity of detail, prehistory is likely to run across evidence of a more compellingly general character; though we will never know the specifics of rulers or battles from the era before writing, we can deduce the general sorts of implements and cuisines that marked various lengthy periods. While even some of the most dramatic incidents of recorded history will leave little trace on human destiny, there is no question concerning the viscosity for

humans of fire, the wheel, and domesticated animals.

We can treat nonlocality and temporal undulation as a pair. The prehistoric is inherently nonlocal, since it is hard to imagine that we will ever identify the exact site or date of the chief innovations of ancient humans. The sway of objects themselves and their general features therefore becomes more important than the exact causal backstory of paleohistoric breakthroughs: a sequence that simply cannot be determined. This leads directly to the topic of temporal undulation, by which Morton meant that objects generate time and space rather than sitting inside them as if in an empty container. The very fact that we use terms such as Stone Age, Bronze Age, and Iron Age testifies to the manner in which the simple human mastery of a new material can define an entire epoch. I have often found it haunting to consider that the use of fire or the wheel might easily have occurred 10,000 years earlier or later than they actually did, and in either case we would be living lives utterly different from the ones we know in 2018. But we can only speak of ‘interobjectivity’ here in the briefest way, since object-object interactions apart from humans play only a minimal role in prehistory. For the most part, the prehistorian is concerned with the ways in which *humans* found it useful to combine wheels with axles or copper with tin.

That brings us to *phasing*, which may be the most important of Morton’s concepts for the study of prehistory. In the first place, phasing refers to the way in which the countless appearances of things and events pale in comparison with the underlying structures of objects that make such appearances possible in the first place. This was why I claimed that the relative scarcity of detail from prehistory as opposed to recorded history provides certain *advantages* to the field: when all that can be learned are pertinent general patterns, we become attuned to those patterns in a way that the student of recorded history cannot. But this conquest of general patterns is not yet a *fait accompli*. We return to Morton’s account of the discovery of attractors:

A phase space is the set of all the possible states of a system. Objects in phase space are intriguing and strange. If, for example, you plot the sum of weather events in phase space, you discover an attractor, a shape that looks like a folded figure 8. Edward Lorenz discovered the first strange attractor (the Lorenz Attractor) in precisely this way.

(71)

Yet Lorenz’s discovery is not just a discovery; it also poses a riddle, as soon as we try to view reality from the standpoint of the attractor rather than that of its swirling transient manifestations in the world. Morton again: “A high

enough dimensional being could see global warming itself as a static object. What horrifyingly complex tentacles would such an entity have, this high-dimensional object we call global warming?” (71) This leads Morton to make the tacit suggestion of a new sort of intellectual project, even if he states it in merely hypothetical and negative terms:

The hyperobject global warming churns away, emitting ghosts of itself for my perusal. This horrible colossus is not capable of being visualized by humans. I can picture a Lorenz Attractor, somewhat roughly. But picturing the gigantic system of which Lorenz Attractors themselves are little footprints is daunting to say the least.

(74)

Yet this sounds to me like a rather plausible mission for the study of prehistory. Is it the destiny of this discipline merely to fill in extra detail currently unknown, thereby ‘heating up’ the prehistoric medium? That is certainly part of it, since a number of key pieces of the human puzzle are probably still missing. But perhaps the real task of prehistory is to ‘cool down’ the medium even more, attempting to picture the gigantic system of which stone, bronze, iron, backbones and lungs themselves are little footprints. In the end, what is this human object behind its millions of years of phasing?

Notes

¹All further page references to *Hyperobjects* will appear in simple parentheses in the text itself.

²The archaeologist Ian Hodder (2012) has explored something very close to Morton’s hyperobjects.

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12

Time matters

Faces, externalized knowledge and transcendence

Barbara Adam and Sandra Kemp

Introduction

Some 400 carved stone spheres, measuring around 7 cm in diameter, have been found in the Aberdeen area and the Orkney Islands of Scotland. They vary in intricacy, decorative detail and hardness of stone, with the largest number carved of granite, the most permanent and enduring material available at the time. The fact that only stone tools were available to carve these stone spheres makes them even more astonishing and enigmatic objects. Dorothy Marshall (1976–77) explains in her extensive study of the spheres that the majority were found in an area of good land with the capacity to support the largest populations.

Many theories had been put forward as to the uses of these carved spheres, ranging from weapons and weights to ceremonial objects and mobile testaments of masons' skills (Nisbet 2014). When dealing with objects dating back some 4,000 years, all interpretation is necessarily conjecture, with some theories more persuasive than others.

Leaving aside the spheres' social function, their geometry is sophisticated far beyond what had been associated with the knowledge practices of Neolithic Britain. As Keith Critchlow (1979: 145) explains, the carved stone balls express the major division of the unitary sphere: octahedral, tetrahedral, dodecahedral, icosahedral, cuboctahedral, icosidodecahedral (the latter two being combinations of two geometric sphere shapes superimposed upon each other to reveal 14 and 32 faces, respectively). Irrespective of whether or not it was explicitly theorized by their creators, and irrespective of the use to which

these spheres were put, the mathematical know-how was embedded in the creations, their associated practices and performances.

Analysis of the spheres' geometry reveals special emphasis on the numbers 5, 7 and 9, which all have known links to planetary movement and are recognized to hold a special place in archaic and ancient cultures the world over (Eliade 1970; Plato 1952; Thom 1967). Moreover, given that numbers express eternal principles (Franz 1974), the permanence of these artefacts' material was appropriate to the mathematical principles involved. Whether or not the numbers encoded in these stone spheres convey belief in an eternal ground of being is again open to conjecture. However, when combined with the art and artefacts, temple structures and underground arrangements of burial mounds of the Neolithic, the conjecture becomes plausible. Pre-dating any written records, the combined material expression of this cultural life suggests an eternal braid of transience and eternity that seems to be woven into the very fabric of those ancient people's lives.



Figure 12.1 Neolithic Scottish stone spheres, measuring around 2.75 inches in diameter

Source: © Society of Antiquaries for Scotland. Photograph Wikipedia (CC BY-SA 4.0).

When looked at through a temporal lens we discern not just incredible mathematical skill but an equally astonishing temporal complexity. We detect engagement with eternal principles, permanence and longevity as well as rhythmic patterning, temporality and change. These temporal features were activated and practiced, denoting know-how of immense depth and complexity, thus pointing to extensive temporal mobility and prowess.

Applying a temporal lens to 'prehistory' tends to sidestep the more accustomed package of archaeological and historical questions around dating, usage, function and utility, taking us instead to constitutive existential issues of life and death, growth and decay, transience and permanence, where we find engagement with finitude, impermanence and efforts to extend beyond the lived present. It tends to foreground temporalities that are shared without denying or diminishing diverse and unique cultural expressions. Using earliest representations of the face, it is these temporal issues that will primarily

occupy us in this chapter.

Irrespective of the intended usage of artefacts, as externalized know-how, they can become sources for understanding. Objectified we can get to know something with the full complement of our senses, adding several dimensions to the auditory one of speech, and the auditory-visual communication between co-presents. New modes of thought and expression are made possible through the visual. Importantly, the creation of artefacts opens up the realm beyond the present and allows for the free movement in time, given that the creation and representation of the inescapably impermanent world in permanent form facilitates time-binding and time-distanciation practices that far exceed the capacity of spoken symbolic language. As such, the creation of artefacts can be seen as enabling, as opening up what is possible and what can and could be. Seen through a temporal lens, artefacts become agents of the future, temporal extensions of their makers, holders and users.

In this chapter we will investigate the face as an exemplar of externalized knowledge to explore approaches to time and history, and narrative about the past. Locating our arguments within wider theoretical and methodological frameworks drawn from the social sciences, and from visual and material culture, we will examine the shift in focus from space and materiality to space, materiality and time, and explore the movement beyond current binary distinctions between past and present to include the future. As externalized knowledge, prehistoric artefacts and art open windows on time matters of impermanence, finitude and the realm beyond the lived present.

Prehistory as time matter

There has never been a period in the last 3.5 million years in which natural rhythms were human rhythms, and we have no evidence that Paleolithic groups were in tune with, or at the mercy of the environment.

(Gosden 1994: 9)

The archaeologist Christopher Gosden's statement is echoed by the sociologist Helga Nowotny (1975: 328), who insisted some 20 years earlier that there exist no human societies that could be said to "lack the ability to transcend the immediate present". Both authors respond to work that understood historical stages in terms of progression and progress, where 'earlier' tends to be associated with being less advanced, less sophisticated, less able to operate in and with time. One such categorization associates the lives of ancient cultures with cyclical time, where the past and especially the future have little significance and it contrasts this with modern societies' existence in linear,

historical time. In previous work Barbara Adam (1990, 1995 and 2004) has argued that such divisions deny so-called prehistoric cultures temporal relations that biological research has shown to constitute an integral part of *all* life forms. Living being is rhythmically organized, with the processes and patterns of repetitions involved differing in their recurrence, thus signifying renewal. Such renewal is not change *in* time but it *constitutes* time. This directional rhythmicity endows beings with memory, foresight, and the capacity for synthesis. As such, the rhythmic temporalities of growing, ageing, healing, regenerating and reproducing are all directional aspects of the dynamics of organisms with form.

Given that temporal extension into past and future, foresight and planning tend to be fundamental to all rhythmically organized beings, it clearly makes no sense to deny these capacities to human cultures of the Palaeolithic and Neolithic periods. There is, however, a need to distinguish between being one's past and future, having an awareness of it, and relating to this as an existential condition. The human potential for relating to the past and future, as John Dunne (1973) points out, has turned an existential condition into a socio-cultural achievement. The relationship to death in particular extends human beings beyond the cycles of nature even when their daily lives are dominated by concerns that do not reach beyond the growth cycle of seasons. To conceptualize ancient cultures in cyclical time, as has been done so effectively in traditional structural analyses – be it a 'timeless' or seasonal kind – denies those societies the human characteristic of a relationship to death and spiritual concerns with transcendence.

Equally troubling is the division of our human past into the historical world of recorded symbolic representation and a preceding prehistorical other which is defined by lack and what it is not (yet): no writing, no symbolic representation, no accounting records, no linear history. Such a conception tells us rather more about the standpoints and implicit assumptions of investigators than it does about their subject matter. As we show in this chapter, an explicit focus on the temporal relations and knowledge practices of ancient cultures unsettles boundaries defined by deficit, such as those associated with the concept of 'prehistoric'.

Those implicit assumptions of 'our time' are underpinned by dualisms and bounded distinctions such as mind and body, nature and culture, individual and society, synchrony and diachrony, as well as past, present and future. We can take the anthropologist Claude Lévi-Strauss's (1963/1972) dualistic models as a paradigm case because they still haunt the implicit assumptions that underpin studies of human societies distant from 'us' not just in time and place but also in cultural knowledge practices. Lévi-Strauss differentiated 'our time', dominated by history, irreversibility and succession, from the times of societies

among whom cyclicity, simultaneity and even reversibility was said to prevail. These distinctions entail for traditional and archaic societies an assumed shallow past extension and a barely existent future orientation. Clear evidence to the contrary has been established by anthropologists, archaeologists, cosmologists and historians who insist that no human society could be said to live in cyclical time (Adam 1990, 1994 and 2004; Bourdieu 1979; Dunne 1973; Eliade 1954/1989; Fabian 1983 and 1993; Gosden 1994). The relationship to birth and death, the fashioning of tools and the creation of art, artefacts and architecture, both singly and as packages, all suggest a time extension and time transcendence that vastly exceeds that of the daily and seasonal cycle, even the human life cycle.

In order to break down such dichotomies, J.A. Barnes (1971: 545) suggests that we need to establish continua and supply more facts instead of using oppositions “that dance endlessly round each other”. However, the simplicity of the suggestion is deceiving, since following it through entails leaving behind dualistic schemes of understanding and replacing them with alternative conceptual models. The latter might involve emphasizing such key concepts as ecology of mind (Bateson 1973), entanglement (Hodder 2011; Renfrew 2004), implication (Adam 1995), material engagement (Malafouris 2013), and thinking through making (Ingold 2013). All provide ways of approaching knowledge practices, material culture and the social life of things through non-dualistic ways of understanding and, whether explicitly or implicitly, proffer a temporal perspective on the continuity of being in, of and with time. In these perspectives, seeming opposites are no longer mutually exclusive but reciprocally implicating. Mind and matter are forming and informing each other. Past and future are gathered up in the present and bound into a constitutive relational coherence. To achieve such a perspective, the overall logic of boundaries and delimiting lines needs to be more or less abandoned (Malafouris 2013: 36) in favour of distributed minds, emphasis on process and engagement with knowledge practices.

In this chapter we seek to illuminate three key temporal relations through the focus on artefacts depicting the human face. These are the relationship to finitude, the relationship to temporal extension into past and future and, last but not least, the relationship to change, transience and ephemerality. Archaeological, anthropological and historical records suggest humans have constructed their being eternally and surrounded themselves with symbols of permanence. The development of human culture, we therefore want to argue, is inextricably tied to the relationship to time and to the quest for transcendence of the earthly condition. However, the way cultures and their members relate to time and the detail of how the complexity of temporal relations is lived, experienced and constituted varies significantly in specific

contexts. In this chapter the primary focus is not on detailed accounts of specific archaeological sites. Rather, it is on shared temporal principles expressed through specific representations of the face and conjectures about their impact on knowledge practices. The broad arguments surrounding approaches to finitude, temporal extension and change will be outlined first before attending in detail to the artifactual evidence of the face in the third section of the chapter.

Relationship to finitude

Mortality

Faced with death we crave an afterlife
Faced with mortality we seek immortality
Faced with extinction we presume reincarnation
Faced with finitude we produce things that outlast us.

(Adam 2004: 74)

Cultural practice creates social time and, conversely, in their relationship to time human beings create culture and structure their social lives. The relationship to finitude and the many varied responses to this primary threat are an integral and central part of this acculturation. Of course, living unto death is an existential condition we have in common with other animals. Experiencing the death of others and mourning their departure we share with just a few higher animals such as elephants. However, as far as we know, human beings are unique in the animal kingdom in having a *relationship* to finitude, which changes the nature of being. Once death is related to, direct and unmediated existence is no longer possible. In the relationship to mortality and the cycle of life, both death and existence are transcended. Thus, neither in the fact that we are aware that we have to die nor in our experiencing death in others and the recognition of our own finitude do we find the source of transcendence and human time. Rather, the uniquely human aspect is rooted in our having to reflect on it, having a relationship to it, imposing meaning on it, and in having to take an attitude to it.

This is what Martin Heidegger (1927/1980) is referring to when he proposes that transcendence is the essence of *Dasein*. As concern, resolve, anticipation and projection towards death, Heidegger understands human existence as 'being ahead of itself'. To him, transcendence is the ultimate basis of all human knowing and behaving. *Dasein*'s total penetration by birth and death and the concomitant fear of non-existence are our ontological condition. Because of its

centrality to human being, death has played a central role in ancient cultures. It provided the pivotal point between earthly existence and its transcendence, between finitude and the continuity of being in a different realm. In the mind, death can be endured and through it the meaning of life revealed.

One response to the finitude of our existence is the search for permanence and continuity in all that is durable, ranging from artefacts to traditions. Faced with the existential condition of finitude, it seems, people have created cultural means of achieving immortality: fashioning art, artefacts and architecture that outlive their creators; positing a spirit world that transcends earthly existence; creating rituals that connect bounded individual lives to group origins and destinies. Burial ensures safe passage to the world of ancestors and creates social continuity across generations, while the production of artefacts externalizes knowledge, thus loosening the dependence on co-presence for knowledge to circulate. Many cultural constructions and creations have outlived not just their creators but have endured for thousands of years to be studied and marvelled at by us today: burial chambers and stone circles, cave paintings and mobility art, tools and pottery, jewellery and mathematical spheres carved from stone.

We think it is safe to say that in no known society are members left to face death uninitiated, without beliefs and rituals that ensure proper passage to a realm beyond death. This human relationship to finitude is inescapably embedded in historically constituted social relations and thus key to understanding archaeological finds associated with burial, the movement of bones, some mobility art and sacred monuments. As such, the relationship to finitude is synonymous with a past and future extension beyond the natural cycle of seasons and associated with a conscious striving for permanence.

Relationship to past and future

Temporal extension

Faced with daily rounds of life we recognize our past
Faced with unbounded beginnings we embody star matter
Faced with present action domains we produce unending futures
Faced with social life now we (in)form and foreshadow future presents

(Adam 2004: 74)

All life forms, as we suggested earlier, are characterized by temporal extension. They encompass an open past beyond individual and species boundaries, reaching back seamlessly to the very beginning of time. It may be helpful here

to explain how a social scientist and a humanities scholar come to such a trans-disciplinary conceptual position. When cultural knowledge is approached through a temporal lens and combined with evolutionary theory and insights from theoretical physics of the 20th and 21st centuries, we begin to appreciate that our understanding changes with the time frame we impose on the subject matter: a nanosecond and less for the quantum world, a few hundred years for history, thousands of years for archaeology, millennia for evolution and geology, light years for astronomy. Opening the perspectival lens to an ever-wider time frame enables us to recognize relations that are invisible from a narrower temporal frame of reference. It allows us to see the braid of connections that relates human beings to star matter.

While crucial, however, this widening of the frame is not enough for grasping human temporal extension. Rather, it also requires a different understanding of the nature of the social. Here, George Herbert Mead (1932/1980) has achieved formative conceptual groundwork with his *Philosophy of the Present*. In this seminal work Mead argues, first, that sociality is a principle that permeates all of nature and, second, that time arises with the symmetry breaking principle of interaction. It means that the source of time is to be located in interaction per se. In the socio-cultural world we act on our world while it acts on us and it is in the ensuing process of mutual adjustment and re-organization that all of the past gets readjusted from the standpoint of the present. No routine action, tradition or regular recurrence, therefore, is ever the same in any of its repeats, as contexts, participants, and environments will have changed. Thus we can say that sociality is fundamentally temporal and temporality irreducibly social as both are located in the interactive process, in the active moment of symmetry breaking rather than its outcome.

Mead's path-breaking conceptualization of the mutual implication of time and sociality has a number of significant implications for understanding the temporality of human life during the Palaeolithic and Neolithic periods. First, neither time nor sociality can be restricted exclusively to human interactivity. At the physical level, bodies encompass all of history while socio-culturally such continuities have to be performed and achieved. Both past and future are constituted by and bound by beings in the present. Finally, the temporality of things, events, organisms and their interactions encompasses inescapable direction: there can be no repetition of the same, no reversibility, no un-being and un-becoming.

Applied to the socio-cultural world, and in agreement with a wide range of social theorists such as John Dunne, Antony Giddens, Christopher Gosden, Tim Ingold, George Lacoff, Lambros Malafouris and Colin Renfrew, whose understanding is compatible with that of Mead, we want to argue that pasts

and futures are constitutive of presents while needing to be maintained and achieved in the present. Gathering up all of the past, reconstituting and remaking it, ensures ongoing continuity into open futures. Performing, enacting and maintaining knowledge practices in the present produce cultural continuity across vast stretches of time. When this performance of continuity is achieved, using permanent materials for the production of art, artefacts and architecture, then future presents of successors are secured and the material base of culture ensured for many generations.

Relationship to change

Transience

Faced with transience we hold time still
Faced with ephemerality we impose structure
Faced with impermanence we create permanence
Faced with mutability we produce art and institutions

(Adam 2004: 74)

There are many ways to respond to change, numerous means to impose a socio-cultural will on the transience, ephemerality and contingency of human existence and the times of cosmos, nature and the body. Making time stand still, abstracting patterns, transforming cycles into circles and re-creating the temporal world in permanent form, are all cultural means of negating change, sequence, and passage. In the process, however, time is not abolished; rather, it is culturally rendered non-temporal. The specific meanings these engagements with change carry for social groups are necessarily subject to conjecture as they differ with participants, the particular practices employed and the specific contexts within which they are enacted.

Numbers are ideally placed to unify the eternal and the temporal, existence and experience. They combine symbolism with temporal practice. In agreement with Marie Louise von Franz (1974), we suggest that numbers give access to patterns and facilitate their cultural reproduction. Importantly, patterns can only be perceived by standing outside the passage of time since they freeze and hold still what is moving and transient. An example would be the patterns created by the stars' movement over time. However, we need to appreciate that the geometry of the Neolithic was unlikely to have been an abstract enterprise. Rather, it was more likely to be performed and practiced: externalized in artefacts, temple structures and the underground arrangements of burial mounds. Representing and creating the temporal world in permanent

and unchanging form means the reality thus created appears as if it were fixed and immutable. As such, it facilitates reflectively based knowledge and with it a time-distanciation that once more far exceeds seasonal cycles and the lifespans of individuals.

Archaic practices that made time stand still thus need to be recognized as *creative* acts of time transcendence and as collective engagements with transience and associated uncertainties. The ensuing products became invaluable sources for reflection and understanding as well as supra-individual means of accumulating and passing on knowledge. Such knowledge practices bear little resemblance to an inescapable condition of existence of 'pre-historic' cultures defined by lack, bound by seasonal cycles and locked into an eternal present. Instead, they ought to be understood as responses to the earthly condition and appreciated as significant cultural achievements. As we show in the next section of this chapter, the creation in unchanging form what is moving, changing, and interconnected, is most explicitly realized by our earliest human ancestors in and through their art.

Faces in time

Abstract art is only important if it is the endless rhythm where the very ancient and the distant future meet.

(Delaunay 1978: 56)

Faces are deeply associated with time. As a complex communication device, the face has always played a key role in social values and relationships and acted as an interface between past, present and future. In art, history generally acknowledges three primary interpretations of faces: as emblematic of personhood and for individual psychological readings; as exemplars or icons to shape social behaviours or religious ideals; and as effigy or momentum, for commemorative purposes after the person is dead (Kemp 2006).

In the context of prehistory, as traditionally defined, figurative art appears to have been rare, and little is known about the origin and interpretation of artefacts representing the human face. However, surviving examples suggest that the earliest depictions of human faces, and especially masks, demonstrate our embeddedness in an existence of different temporal and material dimensions: tangible and intangible, inner and outer, past and present.



Figure 12.2 The Makapansgat pebble, c. 2.5–2.9 million years old

Source: © University of Witwatersrand, South Africa. Photograph British Museum, Creative Commons (CC BY-NC-SA 4.0).

Although not a manufactured artefact, the Makapansgat pebble or the pebble of many faces (c. 3,000,000 bp) possibly comprises one of the earliest examples of symbolic thinking or aesthetic sense in the history of human heritage (Bednarik 1998). This pebble, which has natural wear patterns that resemble a human face, was found along with human skeletal remains at a distance from any possible natural source. As a result some speculate that its keepers may have recognized it as a symbolic face, and retained and brought it back to the cave for this reason (Kleiner 2009). According to psychologists, we are drawn to looking at each other with a sustained intensity and complexity accorded to no other field of visual acuity (Bruce 1998). Part of the allure and mystery of the face exists in the inextricable combination of inner and outer, and consciousness and countenance. The human eye looks for and can detect

the slightest deviation from the accepted norm in another's face.

We have no way of confirming the pebble's provenance or the specific social and environmental contexts of the other examples discussed below. Nor should we seek to understand these with mainstream European aesthetic tools and conceptions of art, primarily developed from the classical civilizations of Greece and Rome. In the earliest known forms of art there are no distinctions between art and craft, and the word 'artist' does not equate with contemporary notions of individual and unique makers. A useful working definition of such art would be "meaningful objects shaped by human hands" (White 2003: 20). However images and artworks have always been vibrant shapers of knowledge and the knowledge we abstract from the body continues to be one of the most powerful ways in which we define and transform our sense of what it means to be human. Writing about the North European bog bodies from around 8000 BCE, Karina Croucher (2012: 4) describes them as "human time capsules capable of connecting past and present in ways different from other archaeological artifacts". By analogy, as material metaphors, faces may always have been used to sustain our need for significance, continuity and identity.

The specific cognitive, perceptual, affective and performative qualities of visual and material thinking are crucial to our investigation of these early constructs of the face. Do images script the future and do we become extensions of them, or them of us? Do artworks mediate the world or shape it? Visualization has always been a way of forming, manipulating, understanding and transmitting knowledge. Objects and artefacts transform themselves into catalysts for ideas, philosophies, vision and imaginaries in every epoch. Looking at facial legibility and the role of representations of the face in art and artefacts as externalized knowledge practices in the creation of cultural time takes the argument beyond the delimiting standard historical lenses of the binary and the cyclical as outlined in the first and second sections of this chapter.

The extraordinarily expressive repertoire of facial representations and their unrivalled ability to communicate across cultures and centuries makes them a fascinating exemplar of how material things exist in time by means of both time-binding and time-transcending qualities. In this chapter we argue that focus on shared temporal attributes of some of the earliest figurative artworks across each set of unique cultural contexts avoids the pitfalls of post-hoc generalizations based on incomplete knowledge. The temporal focus also avoids placing the multi-vocality and representational ambiguity of all prehistoric art as traditionally defined into the culturally homogenized category of 'prehistoric'. Edward Burnett Tylor (1871: 1) defined culture as "That complex whole which includes knowledge, belief, art, morals, custom

and any other capabilities and habits acquired by man as a member of society". The fundamentally relational character of material things is a route into a web of social, economic and ecological relationships. Reading temporality through material expression allows for commonality of consciousness and of some practices, but differences in meaning, interpretation and context.



Figure 12.3 Plaster skull from Jericho, c. 7000–6000 BCE

Source: © Trustees of the British Museum. Creative Commons (CC BY-NC-SA 4.0).

It is not merely the likeness which is precious in [the daguerreotype] – but the association, and the sense of nearness involved in the thing, the face of the very shadow of the person lying fixed there forever.

Human lives are lived in relation to the finitude of existence. Our search for permanence and durability is inseparable from the inevitability of death. Death is often considered the pivotal point between earthly existence and transcendence. Responding to death by fashioning objects that outlive us, or by positing a spiritual world that transcends earthly existence and has social continuity across generations, are important ways of reflecting, controlling and changing our relationships with time. Out of attempts to circumvent death we create culture and the structures of social life.

Faces can be intimately associated with death. From the earliest times faces have been associated with shamanism, necromancy and trafficking with the dead – although clearly not all archaeological masks reference contexts of death. Amongst the first known representations of faces are those constructed from both the dead body of a person and from artistic materials. These comprise one of the oldest art forms associated with burial practices. About 90 skulls dating from 7000 to 6000 BCE found in Neolithic Jericho have faces that were built up in plaster over the facial region of the skull (Croucher 2012: 94). When plastered, a layer of lime, gypsum or mud plaster placed over the face creates a flesh-like appearance. Many of these plastered skulls were also painted and had accentuated eyes, either outlined with eyeliner or decorated with shells set into the eye sockets to simulate eyes. Most of the skulls are from adult males but some belonged to women and children.

Similar practices can be found elsewhere – most obviously in the case of Ancient Egyptian mummies of the Old Kingdom; or in the surviving flattened stone masks with minimal features of the great metropolitan centre of Teotihuacan (Mack 1994: 69). These are also believed to have been intended for funerary use, covering the faces of the dead. The Teotihuacan stone masks were encrusted with turquoise and coral mosaics or inlays of obsidian pyrite, with mother of pearl around their eyes and teeth.

It is no accident that the plastered skulls were made during the Neolithic period as this was a time of significant social development and enhanced understanding of the surrounding world, probably as a result of the migration of peoples and identification and exchange within and across groups. The destabilizing of the correlations between human being and artwork, life and death in the plastered skulls evidences complex relations with time. As Croucher (2012: 58) notes: “Ultimately perhaps what we see is the desire in this period for the living to make the dead accessible, recreated and resurrected though the plastering of the skulls and the curation of the dead close to their living kin”. By combining real body and artificial materials in these ways, funerary faces acted as an interface between life and death, past, present and

future, and – in some instances – between mortal and immortal. The Jericho plastered faces were buried under the floors of their homes but death was not considered as an ending – the faces became part of a new life cycle, curated and displayed by the living. In addition to burial, scholars believe these plastered skulls and stone masks were placed on public buildings and displayed within private living spaces to commemorate family ancestors (Croucher 2012; Whitley 2002). They sometimes represented the deities with which those ancestors were most closely associated (Croucher 2012: 96). The plastered statues of Ain Ghazal and Jericho were designed to be viewed face on, with a flat profile. Additional usage and rituals associated with the plastered skulls as masks further corroborates this.

The world the mask exists in is not a truthful reflection of the world but another form of reality.

(Mack 1994: 26)



Figure 12.4 Mask: Hirbat Duma pre-pottery Neolithic stone mask, measuring 22.5 cm × 15.6 cm × 6.6 cm

As part of the funerary practices, the constructions of some Neolithic plaster and stone masks, such as those from the Judean Hills suggests that these also had interactive and performative functions during the Stone Age, constructing and maintaining relations between the living and the dead. A plaster mask from Jericho is perforated around the circumference indicating that it was tied onto the face. Three-dimensional modelling has shown that most of the Judean stone masks could have been placed comfortably on the face: “The eye holes allow for a wide field of vision, and the comfortable apportioning of the mass is suited to human facial contours” (Williams 2014). These remodelled facial structures in Jericho transformed the bare skulls into lifelike representations of the individual, ancestor or deity. There is evidence to suggest that these were used to communicate with as well as represent these entities (Croucher 2012). In ritual or religious use, users were thought to be possessed by, or become, a god or spirits. Anthropologist Victor Turner’s (1967: 94) liminal phase theory conceptualized access to other forms of reality and new identities acquired during masking ceremonies as a paradoxical status “between and betwixt”. For the Makishi in Central Africa in the 19th century, masks were thought to be the dead in resurrected form and the word itself translates as ‘ancestral spirit’ (Mack 1994). These traces of human visage render spirit or identity astonishingly visible. Ancient Peruvians covered their faces with golden masks to demonstrate the continued existence of their power (Wang 2006).

As well as representing the boundaries between life and death, masks embody new realms of interaction and experience. In a variety of different and culturally specific ways, ancient societies used them to handle ambiguous boundaries and linkages of space, time and society (Wang 2006: 255). For many cultures without a written language, mask ceremonies were a means of strengthening social links and relational identities, reconstituting time through interactions. In the tension and interplay between what they reveal and conceal masks can also embody a range of primary animating functions, such as rituals of healing and of driving out demons. Moreover, the earliest masks were used for hunting as well as for funerary, religious or agricultural cycles and social rites of initiation (Mack 1994). Just as the face is a slender and fragile boundary, where interior and exterior worlds meet, masks demonstrate the uncertain boundaries between the real face and the image, the animate and inanimate, and agility in and across time. As a means of social intervention, masks embody the transformative value of aspirations, empowering social and cultural change. They are objects which carry a memory and intelligence of the future.

However mobile in time, masks also involve irreducible social relations in which past and future are constituted and bound by human beings in the present. As Gosden (1994: 180) has argued, time itself is not the medium through which human relations unfold: human action and interaction *produce* time through anticipation and recursive reflection. Seen in this context, the making of masks and of other artefacts represents a sophisticated form of time consciousness. On the one hand, art is capable of holding time still in context and of negating change and the passage of time. On the other hand, by arresting change through the creation of lasting artefacts, art allows for the accumulation of a past and the opening up of a future in the present. In this latter respect, art creates a new relationship to time in which the past is as revocable and hypothetical as the future in the light of new knowledge and understanding.



The notion of the present as that in which past, present and futures are continually altered and reconstituted is clearly evident in artworks which outlive their makers including some of the earliest undisputed forms of Palaeolithic figurative art. At about 25,000 years old, the French Venus of Brassempouy is one of a number of ivory figurines from the Upper Palaeolithic period. It depicts a female head, and is also known as the *Dame à la Capuche* or *La Figurine à la Capuche*. This Venus figurine is one of the earliest known sculptured realistic representations of a human face. It was discovered in a cave at Brassempouy in France in 1894 (White 2006: 278). Exquisitely sculpted from the hard central core of the tusk, there is evidence to suggest that it was made in an atelier for ivory sculpting (White 2003: 300). As a result of textured rendering of her eyes and hair, the figurine's expression seems to change in different lights.

We don't know who the *Dame à la Capuche* was or what her image represents (White 2006: 251; Collon 1995: 96). As argued in our introduction above, we should not make assumptions based on contemporary aesthetics about the extent to which she may be a proxy for symbolic communication, nor on whether her form is emblematic of individual personhood. As with the plastered skulls, a diversity of alternative interpretative frames have been applied, including fertility, ancestor worship, social status or the activities of daily life, such as hunting and so forth (White 2006: 252).

However, the demonstrably intentional qualities behind the enormous skill of this and other artworks traditionally defined as prehistoric are arguably early markers of culture with respect to human consciousness. The *Dame à la Capuche* was made using a pointed flint tool, or a stone burin, deployed with great dexterity. The surface shows evidence of cutting, grinding, polishing, scraping, gouging and chiseling (White 2003: 87). In addition to creative and communicative power, the ability to select characteristics and forms and apply them in different media and contexts has profound organizational and adaptive implications for social groups. We have perhaps lost touch with the alchemy involved in being able to create the illusion of a real world object out of strokes of the chisel (White 2003). Our nearest 21st-century equivalent is perhaps the new architectures of perception made possible by today's digital avatars and our embeddedness in an increasingly immaterial world of 'smart' interworked things (Kemp 2004: 101–147). The ways in which the *Dame à la Capuche* and other Palaeolithic artworks such as the Venus statuettes and figurines discovered in the area of Blaubeuren, Ulm and Niederstotzingen on the Swabian Alb, in Ice Age Germany and made around 40,000 years ago are

seen to be in dynamic relationship with, and subject to, transformations of the natural world. They constitute an early example of representational thought in which people and things circulate in exchanges which contribute to the identity of both (Thomas 1996).

The fundamentally relational character of material things and the technical virtuosity of the *Dame à la Capuche* also encapsulates the arguments around time and temporality in this chapter. This exquisite ivory figurine represents the past preserved in the present as the legacy of our predecessors' transcendence, and imaginative frameworks as future alternatives to the makers' empirical environments and the potential to change them. It is this magical act of endowing matter with apparent life, making of it an interlocutor, another putative living entity, which underlies and links the most disparate art practices from the most primal and animistic portrait mask to the uncanny digital programming of 21st-century computer avatars (Kemp 2008). The face's diversity, versatility and unrivalled ability to communicate make it a profoundly fascinating enigma.

Conclusion

We need to find ways to carry the mute body of prehistory with us rather than step over its corpse on the road to civilization and the lure of texts.

(Gamble 1996: 24)

In light of theoretical and empirical material relating to key temporal challenges, we have used our investigation of faces in prehistory in this chapter to shift the focus from matter and space to the matter-space-time interdependence. In addition to highlighting the inappropriateness of binary distinctions between space and time, and past and present, the spatialization of time demonstrates the need to move beyond current polarities between past and present to include the future. Alfred Schütz (1945) described this process as dynamic or 'reconstructive' time in which the present is regarded as a sliding ensemble configured on pasts and futures, which are constantly altered in light of new knowledge and understanding. Notably, the movement beyond binary temporal distinctions emphasized the shared features that are an integral part of all difference, uniqueness and particularity. It addressed the problem of then and there as 'other' to the here and now and de-essentialized notions of the 'universal' in which pasts and futures and their inhabitants as perceived as 'other', and distinct from us in some absolute way. It encompasses full temporal extension to past, present *and* future without prediction and determinism.

Reconstruction – or re-constitution – was shown as part of the dynamism of time-space-matter in relation to artworks through which we relive the past in externalized form in light of the present while foreshadowing, anticipating and creating the future. It is as if the whole of time was contained in the DNA of each artwork. By asking different questions of the archaeological record through this focus on the porous borders between past, present and future, we have offered an alternative to the linearity described by Randall White (2003: 23) in which “The category of ‘primitive’ art lumps together all non-Western and prehistoric imagery into a manageable culturally homogenized category presumed to be accessible to the universality of our aesthetic tastes and susceptible to our judgments of aesthetic value”.

Reading temporality through diverse material expressions of the face across cultures reveals differences in meaning, context and variables of practice. At the same time, the fundamentally relational character of material things – between people and material worlds, between humans and animals, and between the living and the dead – demonstrates continuity and commonality of anticipation and recursive reflection. This is particularly the case in relation to artworks and objects. Bound by nature but produced by culture, artefacts with faces have particular resonance as the embodiment of time through communicative power of the human countenance as focal points for narratives of social agency and identity, or of past, present and future. As Gosden points out (1994: 180):

This involvement leads to the creation of time in the form of joint anticipations of the human and natural worlds. Here we can see how materiality and mutuality are linked: a fundamental juncture giving shape and trajectory to life, providing a means of creating history.

As externalized knowledge, art and artefacts open windows on impermanence, finitude and the realm beyond the lived present. Such works facilitate reflective knowledge and with it time-binding and time-distanciation practices that exceed the capacity of spoken symbolic language. We have argued that new modes of thought and expression are made possible through the visual: as the realm beyond the present is opened up, art and artefacts allow for free movement in time. Endowed with life, the human face is an exemplar of such externalized knowledge. Animated, the created face looks back at its maker, another putative living entity through which reality could be probed and the temporal givens transcended. Importantly, the temporal lens seriously unsettles the taken-for-granted division of history and prehistory and requires it to be reframed and re-conceptualized.

In locating our arguments within wider theoretical and methodological

frameworks drawn from the social sciences, and from visual and material culture, we have found that trans-disciplinary perspectives have much to contribute to approaches to the conceptualization of time and history, and to the intersection of the material, the spatial and the temporal.

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“I make this standing stone to be a sign”

Material presence and the temporality of the trace in highland Madagascar

Zoë Crossland

Introduction

In this chapter I would like to think about the temporality of the trace. By this I mean those archaeological materials that we excavate, record and narrate, and how their variegated relationships to other entities, material and immaterial, unfold. Certainly the most salient aspect of such traces for us as archaeologists is that they persist and endure, but how might they change and develop? How might we think about the dynamics of the trace, and how might this prompt a reframing of archaeology's relationship to the past? To explore these questions, I bring together two disparate elements: on the one hand, the visible traces of the dead in highland Madagascar, and on the other hand, a moment where two semiotic traditions touch in the pages of Derrida's *Of Grammatology*. Bringing one into conversation with the other I aim to consider how the writings of poststructuralist philosopher Jacques Derrida and those of his pragmatist predecessor Charles Sanders Peirce might provide an entry to think with the traces of the dead in highland Madagascar. In exploring the temporality of the trace, I develop some thoughts that I initiated in earlier publications where I've suggested that highland Madagascar offers ways to think productively about the relationships of past to present and future, outside of a linear progressivist frame (Crossland 2001, 2014). I hope by examining the temporality of the archaeological signs that sit at the heart of our practice to contribute to the wider discussion on the pluritemporality of archaeological remains. I suggest that Henri Bergson's perspective on time is especially congruent with the temporality of the trace as developed here.

Imerina in highland Madagascar has been long known as a place where the past touches the present. Maurice Bloch writing in 1971 observed that “the existence of the past in the present is very much more real in Imerina than it is anywhere else I know” (1971: 7). In this and a number of other publications, he outlined how the present is oriented toward the traces of the past, describing how the disposition of ancient villages and tombs maps out the history and social hierarchies of the highlands (Bloch 1977a, 1977b, 1985). This is a living, generative map in which ancestral land plays a central role in maintaining relationships between the living and the dead and ensuring the continued health and well-being of descendants. The importance of ancestral land may be illustrated by the most severe punishment under the 19th-century highland monarchy. This was to be ‘lost’ – to be sold into slavery, and in the process stripped of one’s ancestral land and removed from the flow of blessing from the ancestors. Ancestral blessing was the source of fertility, well-being, and wealth for living communities, and to be deprived of it through slavery was a form of social death not only for oneself, but also for one’s ancestors and descendants. This was a punishment that reverberated backward and forward in time with damaging repercussions that are still felt by descendants today (e.g. Evers 2002).

Across Madagascar the living and the dead are understood to inhabit the same places, dwelling together, side by side. Writing of people on the north-west coast, the anthropologist Gillian Feeley-Harnik has observed that there is no separate land of the ancestors, where people go when they die. Instead, the living are understood as transient inhabitants of a world that belongs primarily to the dead (Feeley-Harnik 1991: 22; see also Graeber 1999: 319). Similar beliefs are pervasive in the central highlands as Bloch has shown (1971; also Renel 1920–21). Here we are dealing not with a supernatural world, but rather the ‘intranatural’. This living-with-the-ancestors is reflected in the Malagasy word for people or humanity, *olombelona*. The term qualifies the word for people (*olona*) with the modifier ‘living’ (*velona*) (Bloch 1971: 221; Kottak 1980: 213), indicating that there are different ways of being human that are not circumscribed by life. If the living dwell among the dead, then they also dwell among their material and immaterial traces, and are joined to them through these remainders. The past is present and visible, manifest in the many visible signs of the ancestors in the landscape. Indeed the word for ‘past’ in Malagasy (*taloha*) can be translated literally as ‘there in front of the head’.

Øyvind Dahl (1999: 43–59) has outlined how many Malagasy terms for temporality orient the speaker towards a familiar past, which lies ‘here, in front of the eyes’ (*teo alohan’ny maso*). In contrast, the future is often conceptualized as ‘after’ or ‘behind’ (*aorina*, *any aoriana*), lying hidden and out of view. Dahl argues that conceptually the future is understood to flow

into view from behind the body, continuously emerging in the present (Dahl 1999: 43). This conception is echoed in many common phrases and proverbs. One may be “overflowing with good fortune today, but tomorrow you will see” (*izay tondraka anio manan-jara, fa izay ampitso ka hitanao*). From this perspective people and events are not projected into the uncertain future, but rather the living and the dead dwell within the stream of time, which in flowing from behind reveals the becoming of the future in the present. Dahl suggests that a common expression to mark the New Year can be translated literally as “congratulations for being reached by the year” (*arahaba fa tratry ny taona*). This carries a sense of the year flowing dynamically, catching up with people as the calendar turns. There are other conceptual metaphors through which temporality is thought and articulated in highland Madagascar, and indeed there has recently been some debate over Dahl’s characterization of Malagasy time conceptions (Woodling 2017). Nevertheless, it is certainly the case that the past is commonly understood to lie visible within the landscape, while the future remains hidden within the flow of time. As I explore in this chapter, this particular set of associations is extraordinarily rich for us as archaeologists thinking about the temporality of archaeological traces. It evokes the durational nature of time, in which the continuously changing present contains the traces of its past, and it also provides a way to think about the politics and privilege of history, both in its writing and in the traces among which we dwell.

The perspective of the past-before-us contrasts with the dominant conceptual metaphors for time articulated in the English language, where the past usually lies behind the body, becoming increasingly distant as we progress toward the future which is just coming into view on the horizon. This articulates a chronological view of time as linear, directional, and non-repeatable, which as Gavin Lucas has explored has underwritten most archaeological narratives and understandings of change (2004). Recent moves to critique the progressivist assumptions that underwrite many historical accounts (Brown 2001: 15; Dawdy 2010; Navaro-Yashin 2009: 7) have drawn on the well-known figure of Walter Benjamin’s Angel of History, which evinces some similarities with highland Malagasy temporal metaphors. For Benjamin, the angel, inspired by Klee’s *Angelus Novus*, stares back on the wreckage of the past, wanting to “awaken the dead, and make whole what has been smashed”, but it is unable to stay for it is being violently blown into the future by the storm of progress (1968: 257–258). In placing the ruins of the past at front and centre Benjamin subverted the assumption that history moved toward advancement and civilization. Instead, foregrounding the disorder, and turmoil left by the march of progress, he emphasized the lack of any meaning in the onward movement of history (Brown 2001: 159).

This profoundly dystopic image resonates for those disillusioned with the enlightenment ‘dream of reason’ and its playing out in colonial contexts (Gonzalez-Ruibal 2006). Certainly Madagascar’s history of 20th-century colonization and the violence that it wreaked on the living and the ancestors alike speak to the violence of ‘progress’ (Cole 2001). However, despite the depredations of European colonization and the demands of the 19th-century indigenous state, Benjamin’s angel does not quite capture the temporal orientation of highland Malagasy concepts. For the angel is overpowered by the storm of history, and hurtles backwards toward a future over which it has no control. It offers few possibilities for thinking about the unfolding future. Benjamin’s writings have provided an evocative site for imagining a different relation to the past as Laurent Olivier (2011) has explored. Olivier’s position that “the space inhabited by the past is not the past itself but the present, and only the present” and further that “the past is the very matter of the present, its thread and substance” resonates with highland Malagasy perceptions of the past’s immediacy. What is recognized by highlanders are the ways in which the traces of the ancestors are distributed not only through space, but through time; the traces of the dead persist and are recognizable in the landscape and practices that are inherited and inhabited by the living. Olivier draws upon Henri Bergson (1911, 1912) to think about the dynamics of history-making. He argues that it is processes of reproduction or reinscription in matter that create history. This means that archaeological time is not linear but rather a dynamic flux of different temporalities. “Thus, what the archaeologist brings to the surface”, he argues, “is not so much an object recalling some clearly delimited time period of the past, as the evolving memory of that past, whose meaning can be determined only by and in the present” (2011: xvi). There are two things that interest me here which this chapter addresses: on the one hand, the question of how far the meaning of a trace is something we inherit from the past as much as determine in the present; and on the other hand, the question of how memory evolves in the present and anticipates the future. In questioning the linear temporality that underwrites most archaeological narratives, we have yet to adequately re-engage with the question of process (although Gosden and Malafouris (2015) have recently made steps in this direction). How do the traces of the past change and evolve? How can we decouple narratives of change from narratives of progress? Highland Madagascar’s attention to the signs of the dead provides an opening to explore these issues. By attending to the traces of the dead we can find new ways to think the temporal relationships of archaeological materials within a framework that refuses a linear progressivist imaginary without collapsing everything into an atemporal present.

Returning to the conceptual metaphors for time in highland Madagascar, if

the future cannot be fully anticipated then the conditions given from the past must be carefully attended to, in the hope that one may take advantage of future events (Crossland 2014: 52–53). This way of thinking about the future, as unformed potential flowing and revealing itself in the present, provides a different perspective on Benjamin’s Angel of History. It allows us to speak about the future in ways that are not tied to a sense of movement and progress through time, but rather which imagine future unfoldings while taking account of past and present in the same moment. This is another way of imagining the pluritemporality of archaeological traces, one with more space to address the future alongside the past. The landscape of the present contains everything that has gone before, but not everything is available to the living, or equally acknowledged or recognized. Its organization and arrangement provides the channels into which future becomings will tend to flow. In this way the future can be prepared for without the hubris of assuming that it can be known. This is neither a progressivist view of the future nor a dystopian imaginary. Instead it is one in which the future is unknown but unfolds in relation to the inherited and highly political conditions of history. This imaginary perhaps resonates more with Bergson than with Benjamin, giving us a way to think about change, evolution and the identification of historical trajectories (Bergson 1911).

Standing stones and the semeiotic trace

One of the ways in which the dead are made visible is through the megaliths that are scattered across the landscapes of the highlands. As in English, the Malagasy term for these monuments is ‘standing stone’ (*tsangambato*). Oral histories of the highland sovereigns collected in the 1860s recall the claim of an early monarch that “I make this standing stone to be a sign” (*famantarana*). His advisor responded, “You are a king who will never be destroyed, for this history will never be destroyed” (Callet 1974: 859). As well as being described as ‘history’ (*tantara*), stones were also termed ‘witnesses’ (*vavolombelona*) (Callet 1974: 734). These monuments were conceptualized as material traces that carried meaning. A common saying in the highlands is that such stones allow a message to be passed on (*ny vato famelakafatra*) (cf. Parker Pearson and Ramilisonina 1998; Raherisoanjato 1985). We know from the 19th-century historical traditions that there were many reasons why standing stones could be placed. These included ‘male-stones’ (*vatolahy*), which commemorated important men, especially if the body could not be returned to the tomb, and ‘stones that are planted’ (*orimbato*), placed as a mark of accord, commemorating judgements and pronouncements, and delineating boundaries

and controlling movement. Sacred stones (*vatomasina*) were found at shrine locales where the sacred community protectors were kept and where sacrifices were carried out, or where the king presented himself to his people and proclaimed his succession (Callet 1974: 386–387). Susan Kus and Victor Raharijaona have also investigated the use of stones in present-day highland communities, noting how they are used to control invisible forces and protect people's movements through the landscape (Kus and Raharijaona 1998). In yet another common use, standing stones may be repurposed by women who hope to have a child and leave offerings at them to this end (Crossland 2014: 226–227). These disparate practices not only differentiate different classes of stone, but also show how they can shift from one category to another over time. It is therefore possible to recognize a great variety of 'messages' passed on by highland standing stones, and yet at the same time the stones themselves provide little indication of the original use or intention behind them.

Given such circumstances, how can anyone hope to know what these stones mean? What is the significance of the trace, and how might it evolve over time? The search for a single meaning or a single reason for such a trace must necessarily be chimerical. Archaeologists who work with standing stones all over the world have to deal with their somewhat intractable nature, and Holtorf and others have noted how important it is to recall the changing life histories of such monuments (Barrett 1994; Holtorf 1996, 1998). Returning to Jacques Derrida, whose often unacknowledged influence was pervasive in early post-processual archaeology, we can well appreciate his direction to attend not to the originary intention behind the stone (under what he termed the 'metaphysics of presence'), but rather to consider the interplay of all of these different possible meanings and how they get caught up in the trace. Even if originally placed to mark a boundary, a stone's placement 'always already' evokes all these other meanings – of judgements, of the dead, of ancestors, of fertility, of visible power and its commemoration. In this way they articulate a field of citationality, always open ended, and always available to be deployed in new situations, creating new contexts for action. In this sense meaning is dispersed and unstable and emerges from this chain of associations as much as from any original intention. However, the emphasis on the free play of association ultimately led to sustained critique within post-processualist archaeology, at first with debates around relativism and the attendant fear that there was no foundational basis on which to make truth claims (Lampeter Workshop 1997). Latterly, these concerns have been supplanted by claims that this kind of influence in archaeology reduces the rich and textured nature of the tangible world to an intangible web of human conceptual meanings, failing in the process to take proper account of the materiality of the traces we deal with (Olsen 2010; Olsen *et al.* 2012). Where

does this rich tapestry of human meaning-making leave the question of presence? How can we think the stoniness of the stone, or its persistence and perdurance in the present within a semiotic frame of reference? How do we account for a stone's texture and grain, its durability, and its ability to stop us in our tracks? What is the being of the referent aside from the stone as material sign?

If we examine the genealogy of Derrida's notion of deferral of meaning we can find a line to the 19th-century pragmatist philosopher Charles Sanders Peirce, who came from a very different philosophical tradition, firmly grounded in scientific practice and in examining claims to the real. Derrida observes:

Peirce goes very far in the direction that I have called the de-construction of the transcendental signified, which, at one time or another, would place a reassuring end to the reference from sign to sign. I have identified logocentrism and the metaphysics of presence as the exigent, powerful, systematic, and irrepressible desire for such a signified. Now Peirce considers the indefiniteness of reference as the criterion that allows us to recognize that we are indeed dealing with a system of signs... . According to the... "phenomenology" of Peirce, *manifestation* itself does not reveal a presence, it makes a sign... . The so-called "thing itself" is always already a representamen [a sign or sign vehicle] shielded from the simplicity of intuitive evidence. The representamen functions only by giving rise to an interpretant that itself becomes a sign and so on to infinity.

(Derrida 1998 [1974]: 49)

Here Derrida calls on Peirce to affirm his view that the search for a transcendental signified – the ultimate meaning of a sign – must always be futile. The thing itself is a sign, he notes – the most tangible, physical thing itself is always a sign, and cannot be understood outside of a semiotic framework: hence there is nothing outside of this semiotic text. Derrida has no place for presence – for him it is always mediated through and dispersed within the play of signs in an unlimited chain of semiosis – the search for an origin always discovers another supplement to the trace. This is in part because although Derrida references Peirce, he is working within a semiotics founded in the linguistic tradition of Saussure (and note that the above quotation is found in a section headed 'Linguistics and Grammatology'). Saussure's semiology also evinced an antipathy to presence, leaving the referent outside of the linguistic sign relation, and paying little attention to it. It is significant here that in developing his notion of deferral and *différance* Derrida drew on an early statement by Peirce from 1868, rather than Peirce's more mature

work. While Peirce certainly would agree with Derrida that everything is mediated through signs, in his later work he moved away from the emphasis on the endless chain of signification. Peirce first argued for an “infinite series” of signs interpreting signs (Peirce 1868: 155), but later he moved to explore how semeiosis (using Peirce’s preferred spelling) may come to a provisional halt. He suggested that certain traces promote meanings that stabilize around a particular habit – a habit that can always change, but nonetheless one that gives some texture and grain to the play of signs, acknowledging different semeiotic densities, rather than an endless chain of deferral (Peirce 1998: 398–433).

Derrida’s conception of the trace also worked to emphasize the nonlinearity of historical time, in the sense that the logic of the trace is one in which different temporal moments are summoned and collide. Derrida observed that “the concepts of *present*, *past* and *future*, everything in the concepts of time and history which implies evidence of them – the metaphysical concept of time in general – cannot adequately describe the structure of the trace” (1974: 67). The broader implication is that just as presence can never be reached, so the past acts as another transcendental signified, which holds out the false promise that it will underpin meaning and put a stop to reference. It is clear that the current suspicion with the question of meaning in archaeology derives in part from this poststructural inheritance. The present concern with things and their ontology articulates an idea that in thinking about meaning in terms of endless chains of signification we are precluded from taking account of how the past or the physical properties of the world may have an effect on human semeiosis. Although the parallel archaeological concern with the pluritemporality of archaeological materials (Dawdy 2010; Hamilakis and Theou 2013; Hamilakis 2014; Olivier 2011) and the nonlinearity of history might seem to resonate with Derrida’s perspective, it differs in that there is a shared concern with change and evolution in which Henri Bergson’s influence is important (Bergson 1911). Peirce provides a way for us to situate a Bergsonian understanding of temporality within a semeiotic frame. As noted by their contemporary William James, Peirce’s and Bergson’s perspectives are remarkably harmonious, both offering a dynamic and evolutionary view of reality. James observed:

What really *exists* is not things made but things in the making... Reality *falls* in passing into conceptual analysis; it *mounts* in living its own undivided life – it buds and bourgeons, changes and creates. Once adopt the movement of this life in any given instance and you know what Bergson calls the *devenir réel* by which the thing evolves and grows.

(James 1909: 263–264)

Turning back to Madagascar, we can consider what taking a Peircean pathway into the trace might offer for thinking through its temporality, and for exploring how it too buds and grows. Peirce provides a way to acknowledge and account for the presence of the trace, while also remembering that presence is dispersed and ultimately ungraspable in its plenitude. The standing stones shown in [Figures 13.1](#) and [13.2](#) are two of a cluster of stones that stand in the small market town of Betafo, both put in place in the late 19th century.

[Figure 13.1](#) is the stone of Rainihasimbola, carved to portray a bearded man in uniform. He stands erect with hands at his sides, and inscribed into the front of the stone is an apparently unfinished message that describes the stone as a *vatoalahy* or male-stone. The stone as it stands today is only about half the height it was originally. In the first half of the 20th century it had a face with more depth and character to the features, and shiny black pebbles for eyes. Rainihasimbola was an important civil chief who held great wealth in slaves and cattle, and who was remembered as dying under mysterious circumstances, probably murdered, around 1879 (Lavau 1934: 48–50; Renel 1920–21: 84). Another similar stone stands on his tomb a few hundred metres away ([Figure 13.3](#)). Stones that are sculpted in this way are uncommon in the highlands, but there are a number of them in and around Betafo, all dating to the end of the 19th century and start of the 20th century, sometimes standing alone and sometimes attached to tombs (Dez 1965, 1966).



Figure 13.1 The stone of Rainihasimbola in Betafo today

Source: Photograph by William Griffin.

The stone shown in [Figure 13.2](#) commemorates the military man Rainimandaniarivo. It was erected in 1888 and incorporates the new textual practices introduced by Norwegian Lutheran missionaries (Fuglestad and Simensen 1986). The blue granite monument was quarried from a local source and is now whitewashed annually on Madagascar's Independence Day. Inscribed on both sides is a long message that provides some insight for us into how the Betafo stones were understood at the time. The words reveal that the

stone is not a simple canvass for the script, but draws upon an embodied and performative understanding of memory, one in which the dead man remains very much present. The text begins by asking:



Figure 13.2 The stone of Rainimandaniarivo in Betafo

Source: Photographed by author.



Figure 13.3 Rainihasimbola's stone attached to his tomb at Ambohimanana just outside Betafo

Source: Photographed by Brian Boyd.

How are you sirs? [says] Rainimandaniarivo XIV honours, 3rd chief of the Vakinankaratra. Although our body was separated from you, here in your midst our name still stands, and so we are happy to see so many of you gathered here.

It is clear that this is a stone that expects an audience. It has a message to be passed on, and this is reiterated by a band of text that circles its waist, saying "I am the stone that allows the message, erected on the eighteenth of Alahamady 1888" (*Izaho no ambato amelankafatra nitsangana tamy ny 1888 8 Alahamady*). In giving voice to the dead the text situates the military commander Rainimandaniarivo both in and around the stone, but also in the weekly meeting place of the Betafo market. Rainimandaniarivo's instructions relate explicitly to the marketplace location and to market practices. He continues:

Know how to sell, for fear of selling at a loss, and do not fool the simple. But be watched by God, and observe fairness. And take care of the truth because those who do well will not be bankrupted and those who are gentle will reach a good age.

In its direction to the people gathered in the Betafo market Rainimandaniarivo's stone looks to the future as much as the past, providing a striking illustration of what Holtorf has described as the "prospective memories" of megaliths, built to "transmit a particular message to the future" (Holtorf 1996). However Rainimandaniarivo does not make predictions or explicit claims about the future. Rather, his stone comments obliquely on an anticipated future by calling attention to the conduct of the living, and reminding them to attend to their ancestral obligations. On the reverse Rainimandaniarivo continues:

I've travelled all over the four faces of the land. I was governor at Antomboka for 11 years, governor of Anonobe for 9 years, and the expeditions that I made were numerous. However under God's direction I have returned here to the same ancestral land.

This is a semeiotic trace that is fully grounded in time and place. Clearly this is not a stone that simply stands for Rainimandaniarivo, it also serves to make him present. Both Rainimandaniarivo and Rainihasimbola's stones suggest that all the standing stones in the marketplace constitute material traces that represent the dead and provide a locus of encounter between them and the living. In the rest of this chapter I will explore how Peirce can help us think about the temporality of this trace in a way that recognizes, as Yannis Hamilakis has outlined (after Bergson) that "change is immanent in the constitution and the temporality of the assemblage" (Hamilakis 2017: 174). How is the stone's material presence drawn into the semeiotic presencing of Rainimandaniarivo and the unfolding of history?

The temporality of the Peircean sign relation

Anyone who has heard Peirce referenced in the archaeological literature will likely be familiar with his distinction of icon, index and symbol. For this reason, I do not intend to dwell upon this aspect of his sign relation here (see Crossland 2014: 31–55; Preucel and Bauer 2001; Preucel 2006). Briefly, these are different modes in which a sign can relate to its semeiotic object (or referent) – variously, through a relation of similarity, connection or convention. So a standing stone might resemble the person it depicts, as with the example of Rainihasimbola (Figure 13.1); or it might point to the dead through a relationship of connection or contiguity, as with the standing stone of Rainihasimbola that is built into his tomb (Figure 13.3). Finally, it can indicate the dead through a conventional link – whether through the ascription of particular types of stone to the dead, or through the conventions of language

such as we see on Rainimandaniarivo's stone. As will be evident from these examples, many, if not most signs draw upon all three elements. Peirce's semeiotic insight into the different kinds of relation between signs and their referents is vital for how we understand and make arguments from our archaeological traces. However, given the focus of this chapter on the temporality of traces, I intend to focus here on another aspect of Peirce's sign relation, the interpretant, which is where the dynamics of a Peircean semeiotic conception really come into play. The interpretant is another interpreting sign that is prompted by, or makes sense of the relationship between the sign and its object-referent. Because the interpretant is itself a sign, it can turn around and establish its own relation to a referent, and so bring forth a network of budding sign relations. It is important to emphasize here that the interpretant is radically different from the signifier as developed by Saussure. Not only does it emerge from the interplay of sign and referent, but it is not reducible to a mental construct. Peirce described the interpretant as feeling, as action, and as convention or habit. The interpretant helps us get at the question of presence, and perhaps most importantly, it distributes interpretation across minds and bodies and the world.

For Peirce the emotional (or affective) interpretant is the most inchoate and unformed response to anything. It is pre-linguistic, and this makes it difficult to describe – but one could articulate it as the unexamined feeling one has of self in situation. Sensing the weight and heft of the book in one's hands, or the contrast of the black letters against the glare of the screen, apprehending the enclosure of the walls and floor of the room where one sits, the surrounding sounds and textures: it is all these elements as experienced just before I drew attention to them. An affective interpretant is present, evanescent, and its temporal mode is of might be – of potential unrealized and unactualized.

In drawing attention to the room and to the situation of reading I've conjured a shift of attention and brought you into relation with these elements. This is Peirce's interpretant-as-action. Suddenly your awareness is drawn to the feel of the text in your hands or on your screen, to the size of the room, to the squeak of a bicycle, or to the too loud conversation of a neighbour. Peirce termed this shift of attention an "energetic interpretant". Another energetic interpretant might be to close the book and walk away, or to lift one's head and listen, to look across the room and assess its size and dimensions. An energetic interpretant is a response that is always located in time and place. Its temporal mode is that of existence – one of "is" or "was" or "will be".

It is through the interpretant that we start to get at the question of presence, and its paradoxical ungraspability as Jean-Luc Nancy (1994) has discussed. Returning to standing stones, we can consider the feelings of smoothness or granularity of stone under the fingers as interpretants of a sequence of signs.

This means that we have no direct experience of stone – it is always mediated through the signs we perceive inhering in its texture, its size, its heft and its placement. Yet that is not to say that we cannot know the stone, just that our interpreting experience will always be incomplete and will differ from the experiences of other people and other non-human entities. Animals and plants also experience the signs of the stone through interpretants. A cow interprets the potential of the stone in rubbing its back against it as a scratching post. A plant interprets the potential for growth in the way it thrives or doesn't in the vicinity of the stone and its shadow. Bees may interpret the stone as a place to build a nest and indeed, the nest itself is an interpretant of the stone's potential as a building site. As we take all these various interpretants together we start to build a more complete, but always provisional understanding of the stone in its fullness and potential. Just as Derrida suggests, for Peirce, everything we know is through signs. However, when Peirce says that everything is signs he does not mean discursive signs alone – but rather that our interpreting experience is always mediated through signs and their relation to the referent. Just like interpretants, signs and their object referents may be physical, tangible things and are not confined to linguistic or textual representations.

The way in which humans, animals and plants recognize a stone through its visual and tactile cues can be understood as a type of perceptual judgement. This is Peirce's third type of interpretant, one of inference, which over time can stabilize into a habit. When Peirce says everything is signs, he means that everything is inferred, although not always in a way that is explicit or available to one's critical judgement. Here he resonates with Derrida because he is writing against the Cartesian tradition of self-knowledge and knowledge from interior intuition alone. This means that the feeling of presence is indeed a semeiotic process that is dispersed through the sign relations through which we feel it. But for Peirce, if these inferences seem to be correct, and they continue to work within particular conditions, then they can turn into inferential habits. This kind of habitual interpretant has a subjunctive or conditional temporality of "would be". So we expect stone to feel a certain way, based on our experiences of earlier stones. If we experience the trace of a stone and it is slippery or soft, then we would have to radically revise that semeiotic habit. So semeiosis is always situated within changing conditions of interpretability. It is this temporality, and especially the question of habit that gives us something that is missing from Derrida. Peirce provides a way for the meaning of traces to stabilize into particular patterns – "modes of persistence" (Lucas 2015: 11) that are historically and materially contingent, but also always provisional and more or less perturbable and precarious. Peirce's mature view on semeiosis moves away from the notion of unlimited chains of signs, but without recourse to the beguiling idea of the transcendental signified. Peirce

would likely have agreed with Derrida that the idea that anything can ultimately be reduced to its originary meaning is a fantasy deeply embedded in a metaphysics that privileges a certain kind of foundational presence. However, he would also acknowledge that meanings can stabilize around a particular set of traces, and that humans often take advantage of the material characteristics of the world as we perceive them in order to promote or promulgate a particular set of meanings. For interpretants to become widespread, shared and enduring, they must belong to a community of signers and must be negotiated among them. This community includes animals and plants and other non-humans, also including those non-living but tangible material elements of the world, which intervene into *semeiosis*.

This is what Rainimandaniarivo's stone is speaking to – the need for the recognition and care of the community of the marketplace in order for him to keep speaking and being acknowledged. His voice articulates a fear that without a moral community who buy and sell properly, the conditions for his durability in this trace will be destroyed. The speech of the stone is an attempt to reinforce a particular *semeiotic* habit or assemblage, through a carefully directed trace that attempts to evoke and constrain future interpretants. There is a final section to Rainimandaniarivo's speech, which reads:

The Monday market here does not change, but the children of men act like strangers. Ancient times may be long ago, but the stone from Ambolotara is come to speak here in the Monday market.

The text recognizes the durational quality of time as outlined by Bergson and explored by Laurent Olivier; ancient times lie far distant in the past and yet remain present in the traces that endure. These traces are not restricted to the stone monuments but also include the ongoing practices and people that constitute the market. However, the text articulates a criticism of market practices and draws an implicit contrast with how things had been before. To claim that people are acting as strangers in the kin-based world of 19th-century Madagascar was a call for people to remember what was important and to put their family and ancestral obligations first. Around 20 years earlier in the 1860s, when the Jesuit priest François Callet collected the highland oral histories known as the *Histories of the Sovereigns* (Callet 1974), one of his interlocutors recalled how the markets in the region around Betafo were known for their lawlessness, noting that this contrasted with earlier times. Back at the start of the 19th century, the narrative recalls, locals had to be protected from those who would cheat them, but now the situation had changed dramatically. People had learned how to swindle the unwary, even to the extent of tricking their victims into debt so that those who guaranteed the

loan would lose their liberty (Callet 1974: 892). By the late 1880s the situation in the region had degenerated further and there was a great deal of violence in the province, including many raids and thefts of people, animals and goods (Crossland 2014: 228–255). Prompting these raids were the increasingly onerous and oppressive demands made of the local populace by the military and government administrators. Often the taxes that were levied were simply state-sanctioned forms of extortion. Failure to pay could result in death or enslavement.

Recall that to be enslaved entailed being sold at the marketplace and alienated from one's ancestral land and family. These actions destabilized local structures of governance, broke up families and created the conditions for increased raiding and attempts to recover wealth through the markets. Letters written by Rainimandaniarivo himself show that many of those who carried out raids on Betafo were soldiers of lower rank. In 1872, eight bandits were responsible for stealing 200 head of cattle. All were soldiers of the rank of captain and below. These were men who were not able to coerce people into paying bribes with the same success as those with more power and authority, so resorted to theft instead (Crossland 2014: 230). In these conditions of insecurity, Rainimandaniarivo's stone expressed a concern that the continuance of peaceful encounters between him and his descendants in the marketplace was at risk. His stone articulates an awareness that the future may destroy the community and bring chaos to the market square where he resides. This is a recognition that in attending to the proper conditions and habits of the market he helps to remake and grow his own presence within them. Yet there can be no doubt that Rainimandaniarivo and Rainihasimbola, along with the other influential men presenced by the Betafo marketplace stones were deeply implicated in the market for enslaved people and the extortive practices that were disrupting the region. The stones articulated a contradictory impulse, both recognizing the wealth and influence that these men had wrest from a situation of violent insecurity, while calling for a continuation of proper ancestral relations, and for the moral order of the market to be maintained.

The signs of the future

Returning to the relationship of past, present and future that I outlined at the start of this chapter, we can situate the marketplace standing stones within this perspective. If the future cannot ever come fully into view, one must carefully attend to what one can see, as it is revealed in the present. Caring for the continuity of the past and of ancestral traditions provided the main source of security in anticipating the future. Yet, if the future unfolded in relation to the

inherited conditions of history this was not a neutral and uncomplicated becoming. Instead it was understood to be a profoundly political project. Alain Delivré (1974) has outlined how in 19th-century highland Madagascar the word for history (*tantara*) was also used to refer to privilege. To have history was to have a certain political power and privilege of descent. This was an acknowledgement of the political work that history entails, and a recognition that the past needed to be cared for and curated to remain visible in the present. To assert continuity in the face of dramatic change highlanders had to make sure that the visible history that underwrote that continuity remained in view. History was something that could be given and taken away and this had implications for the future as much as the past. This was articulated in the way that the gift of history was tied to the gift of descent. The *Histories of the Sovereigns* recall how the state founder rewarded his vassal kings: “Andrianampoinimerina gave them history, as far as their descendants and their grandchildren, forever” (Callet 1974: 555).

When the Betafo region was conquered by the same king of highland Imerina, he removed certain rulers from their ancestral land and proclaimed that they could never again set foot there. In excising one history in the form of the material traces of ancient villages and tombs, he remade another, changing the flow of ancestral blessing through the landscape. This was an unraveling and a reknitting of the semeiotic ties of history, seizing on particular material traces and reassigning them within altered semeiotic relations which attempted to establish new habits or tendencies. It is no coincidence that the term *hafatra*, usually translated as “message” in the saying “the stone passes on the message” (*ny vato famelakafatra*) had a broader range of meaning in the 1880s as “a will, a testament, a message, a request, an order for something” (Richardson 1885: 218). Stones passed on messages, but they also passed on inheritance. In creating a locus of encounter with the dead, standing stones offered a place where blessings could be exchanged between the dead and the living. A stone erected in 1882 for another military man, Rainizafiniavo makes this explicit (Figures 13.4 and 13.5). The stone is located to the north of Betafo at Mandritsara, allowing Rainizafiniavo to look out over and contemplate his rice fields. He is depicted in military dress complete with epaulettes and sword, and the inscription reads “Rainizafiniavo, 10 honors is the gentleman for whom this stone was erected on the 2nd of Alahamady, 1882. And those offspring who do not conduct themselves wisely will not inherit wealth”. Perhaps reaffirming this, the reverse of the stone shows Rainimaso, chief aide and in servitude to Rainizafiniavo, depicted in traditional dress, holding a spear (Dez 1965). While Rainizafiniavo’s inscription was refreshed in the latter part of the 20th century, Rainimaso’s side has been less well cared for, and his inscription has

weathered away to a greater extent. The world of 19th-century standing stones was a world where the messages passed on by stones were not understood simply as representations but as physical goods and the fertile continuity of descent through the multiplication of descendants and their wealth and influence. These were semeiotic traces that would bud and burgeon and have ongoing significate effects; predictable to a degree but also providing the conditions for the creation of new forms of life and so opening the way for unanticipated change.



Figure 13.4 Stone for Rainizafiniavo and Rainimaso, to the north of Betafo (close-up)

Source: Photographed by the author.



Figure 13.5 Stone for Rainizafiniavo and Rainimaso, showing its location next to his rice fields

Source: Photographed by the author.

Semeiotic temporalities and archaeology

The traces of the past may be dispersed around the living, just as their meaning is also dispersed, but the ways in which that meaning becomes sedimented around particular objects and traditions is constrained in part by the political. Equally, presence is dispersed in traces, but not evenly dispersed. Clearly the textures of the world contribute to this – the differential decay of wooden markers and stone slabs for example, but also the curation and care given to them. A stone that is planted by the state may lose its original associations over time. It may come to represent the person who made the treaty or marked the boundary, finally becoming a locus within the landscape where ancestors congregate, and a place where one can communicate and interact with the dead. And yet, the meaning is not endlessly shifting and deferred, but at different points comes to rest in a cluster of semeiotic habits. That is not to say that such habits cannot change, but rather that as multiple semeiotic relations form and are sustained, so these associations start to create more robust patterns that become more resistant to disruption. The meanings of a stone rest in places of particular semiotic density, places where work has been undertaken to assure the habit of persistence in place. Meaning here should not be understood simply as representational forms, but rather consists of a web of affective, material-energetic, and habitual-conceptual practices that incorporate the material and the immaterial.

If the future shape of history is anticipated through the traces that are already prepared for it, as made visible in the landscape, then expectations for the future can also be adjusted through action on the materials of the past. But if circumstances bring great shocks or disruptions to these expectations then the relationship of different pasts to the present may be radically reassessed, and the contingency of particular semeiotic habits recognized. It is at times like this that people undertake extra semeiotic work in order to sustain established habits, and this is what we see with Rainimandaniarivo's exhortations to maintain the morality of the market. In a situation where violence and chaos threatened the government and stability of the region, and therefore the health and well-being of his descendants, Rainimandaniarivo's stone attempted to strengthen the semeiotic web through an overdetermination of meaning, reasserting continuity in the face of disruption, upheaval and radical change.

Archaeology draws on the world as it is presented to us in the present to infer what was but also what might or would have been. In making perceptual judgements about material traces, we begin with a moment of potential, informed by past experience – the 'might be' of recognition or misrecognition – an affective interpretant that forms the starting point for inference. But equally important is that our archaeological traces are themselves material interpretants of past sign relations. The positioning of the Betafo marketplace

stones interpreted a particular set of political and economic conditions and a particular relationship to history by specific men. Our work as archaeologists involves trying to reconstruct retroductively which sign relations prompted the material interpretants that we encounter, and so continue the semeiotic chain that we have inherited. This inheritance is not passively handed down unchanged from the past. In grasping and privileging a particular constellation of material traces we imagine a specific past and create the possibility for new worlds to unfold. But in so doing we also efface other histories and recreate the privilege of history. It's salutary to remember that in recording and writing the past we are also always creating the conditions of possibility for alternate futures.

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Contested history-making as part of the building of social networks at Neolithic Çatalhöyük, Turkey

Ian Hodder

There is abundant evidence of an increasing concern with temporal depth and history-making in the pre-Neolithic and Neolithic societies of the Middle East and Turkey (Hodder 2007a). Perhaps one of the reasons that commentators have not foregrounded such evidence in discussions of early sedentism and agricultural intensification is that archaeologists tend to base their accounts on two-dimensional settlement plans. The emphasis has tended to be on the shapes of houses, the activities that take place in them, the spatial relationships between larger and smaller houses, between public and domestic buildings, and the spatial locations of burials. The discussion has been dominated by a two-dimensional perspective, despite the fact that many of the sites have complex and deep stratigraphies. The stratigraphies are seen as important in sorting out chronological sequences, but they are not themselves seen as social.

There is much stratigraphic evidence for repetitive practices in monumental settings (such as Göbekli Tepe), in houses, and sometimes in outside areas (e.g. courtyard or midden areas at Jericho and Aşıklı Höyük), as well as in public spaces such as paved streets (at Aşıklı Höyük), through time in the late Pleistocene and early Holocene in the Middle East and Turkey. There is also increasing evidence of specific memory construction as houses are built over burials, or skulls and other objects are circulated and passed down through time. The concern with time-depth, history and memory reaches its apogee in the Pre-Pottery Neolithic B (PPNB) at the same time that domesticated plants with tough rachis appear in abundance, but it starts to emerge at least by later Kebaran and Natufian times, even in contexts in which sedentism is limited. It is difficult to explain the focus on temporal depth as the result of living in

dense villages. For example, at the late ninth and early eighth millennium BCE site of Boncuklu on the Konya plain, houses are rebuilt in the same locations even though the settlement pattern is fairly open and dispersed (houses are not densely packed together) (Baird 2007). Rather, it seems that the emergence of greater temporal depth was a necessary condition for dense settled life, the delayed returns of intensive subsistence systems and the shift to domesticated plants and animals, as well as for the staging of larger-scale feasts, exchanges and marriages.

But it is clear that there are at least two types or scales of history-making. On the one hand, there is the repetition of large-scale public monuments in the same location, their use and re-use, their incorporation of earlier features, their careful abandonment and rebuilding. On the other hand, there is the history-making evident in sequences of individual houses. At times, as at Aşıklı Höyük, both types of history-making are present. What is the relationship between these two forms?

The evidence can be interpreted as a long-term tension between community and house-based production, exchange and consumption. House-based history-making is evident far back into the Epipalaeolithic (for example at Ohallo), whereas clear evidence of collective history-making is not evident until the Pre-Pottery Neolithic A (PPNA) (as at Göbekli). It is widely and commonly asserted that these public buildings brought communities together and that they mitigated the tensions arising from increased population, more intensive and competitive production, and increasing social differentiation. There are numerous problems with this narrative (Banning 2011). For example, the ‘public’ buildings are often insufficiently large to house a whole community, and at Göbekli it is possible that several were in use at the same time. The provision of restricted entries and a dromos suggest that these are in fact secluded places, restricted to groups smaller than the community as a whole. Throughout the southern and northern Levant, the special buildings are at the edges of settlements rather than being centrally located. In central Anatolia, at Aşıklı Höyük, the public buildings are marginal to the ‘ancestral core’ (Duru 2018) and could only have housed a small fraction of the community as a whole. While it is certainly possible that the ‘public’ buildings brought social cohesion to sub-groups within society, they also suggest in-groups versus out-groups. Their architectural structure, inward-looking and closed off, indicates more the participation of individuals in social networks such as secret societies, men’s houses (Flannery and Marcus 2014) – exclusive sodalities rather than community-wide cohesion.

The other type of history-making during the late Epipalaeolithic and Neolithic in the Middle East and Anatolia centres on houses, their repetition and renewal. It seems that this house-based history-making involved both

practical routines as well as the passing down of objects and immaterial knowledge and forms of ownership. The histories constructed were probably often fictive and imagined, but stabilized and made concrete in the material practices of house building, burial and the circulation of objects. This type of history-making has the greater temporal depth. It can be linked to the gradual rise of economic and social systems in which there is a delayed return for labour input. This type of history-making centres on the house because through this time period there is a largely domestic mode of production in which much production, processing and consumption took place at the household level. Houses were linked together through (often fictive) descent that underpinned economic and social collaboration. There were thus networks of people (a larger 'house' of people) based around individual houses. The ancestral time-depth in the individual house linked together people into a larger 'house' network.

Gradually through time, however, the second form of history-making emerged that allowed greater and wider collaboration within segments of the community as a whole. This second type allowed cross-cutting sodalities to be constructed. These sodalities functioned to link people together across house-based groups. They were often exclusive and highly ritualized. But they allowed any particular individual to call upon a wider array of support in times of hardship. They allowed cross-community sharing on a larger scale while at the same time promoting difference and contestation.

It is thus incorrect to see the increase of ritual and public monuments, of special buildings, as resulting from community cohesion. Rather, over millennia there was a tension between house-based and sodality-based forms of history-making. These competed with each other, and in the end the 'public' buildings that came to dominate in the PPNA decreased in importance and influence into the PPNB and Pre-Pottery Neolithic C (PPNC). Throughout, there is a competitive process of inventing and materializing histories, both between house-based and sodality-based groups, and between different houses and sodalities. The house-based descent groups and the cross-cutting sodalities that convened in 'public' buildings both invested in religious practices that involved history-making. Both involved creating time-depth and at the same time building networks. The greater the temporal depth, the more that people could be incorporated into networks of sharing and co-dependency. But also, the greater the temporal depth, the more could people invest in subsistence practices in which there were delayed returns for labour. The pattern of PPN villages, including the mega-sites of the PPNB, were knit together by history-making.

Another reason for the lack of attention paid to history-making in the period leading up to the Neolithic in the Middle East is that the focus on 2D house

and settlement plans is matched by a focus on the spatial organization of regional exchange and settlement systems. Perhaps partly because our chronologies are so approximate, much research has concentrated on networks of interaction, interaction spheres, population aggregation and settlement systems. Gamble (1998) and Coward (2010) have documented the increased emphasis on networks of interchange in the later Epipalaeolithic and early Neolithic. Exchange relations are often historical in that the objects transferred carry histories with them, linking communities in cycles of interdependence, giving but also keeping (Weiner 1992). One way of creating networks is to build historical ties through actual or fictive ancestry. Another mechanism is to coalesce groups of people around the passing down of rights and duties in 'house societies' (Boric 2008). The greater the temporal depth achieved in the building of ties, the wider the network of affiliated individuals. But there is a logical contradiction between networks that are flat and open, and those that are apical and deep in time, in that the latter promote separation and distinction. Time-depth creates attachment to place, sedentism, tendencies towards ownership, investment. In these ways, and at the most general of levels, history-making contributes to the production of sedentism and the origins of farming. It undermines the collective sharing and reciprocal exchange that appear to dominate the Epipalaeolithic and early Neolithic.

The example of Çatalhöyük

Çatalhöyük is an example of a late site in which the manipulation of history has been largely wrested from collective rituals and placed in the hands of sequences of houses. Houses that were continually rebuilt in the same place and include large numbers of burials have been termed 'history houses' at Çatalhöyük (Hodder and Pels 2010). The aim of this chapter is to clarify the claim that at Çatalhöyük history-making was a key part of the social relations that held the community together and to point to the contestation of those histories. The closely packed agglomerated settlement at Çatalhöyük is 12.5 ha in size and the population has been estimated at between 3,500 and 8,000 at the height of its occupation (Cessford 2005). Clustered amongst areas of midden and external activity, houses are built up against each other with access through the roofs. Four types of building have been identified: history houses, multiple burial houses, elaborate houses, and other houses. History houses (Hodder and Pels 2010) are defined as having at least three phases of rebuilding, and in at least one phase there are large numbers of burials (over ten). They are often more elaborate than other buildings but elaborate buildings and multiple burial buildings exist for which we do not have any

evidence that they were repeatedly rebuilt. The measure of elaboration is based on the numbers of floor segments, basins, benches, installations (including bucrania and other animal fixtures), pillars and paintings in the main room of a building (Hodder and Pels 2010: 166). Multiple burial houses have over ten burials. There can be between 0 and 62 burials in one building. The size of houses varies between 12 m² and 70 m², but there is no correlation between size and the four classifications (Ibid.).

The original excavator of Çatalhöyük, James Mellaart (1967), recognized that some buildings were rebuilt many times on the same footprint, reusing the stubs of earlier walls. Many of these were classified by him as 'shrines'. He also recognized that some buildings were not rebuilt to the same degree. Düring (2006: 208) found that the non-continuous buildings "generally contained fewer burials and mouldings than the continuous ones". Cutting (2005: 69) noted a possible link between elaborate buildings with large numbers of burials and those with long occupation histories but determined that "the data to show this are lacking" (Ibid.).

Recent excavations (Hodder 1996, 2000, 2005a, 2005b, 2005c, 2007b, 2013a, 2013b, 2014b, 2014c) have identified many examples of memory- or history-making in sequences of stacked houses. This has been most clearly seen in the 65–56–44–10 sequence of houses in the South Area (Regan and Taylor 2014). Distinct sources and types of mud brick were used for the houses in this sequence, and Regan and Taylor also note a number of distinct attributes of this late sequence of buildings including the repeated setting of pots in floors at the base of ladders. Russell *et al.* (2013) note a distinctive set of pathologies in sheep bones from B.65 and its associated middens, indicating some form of isolation for the flock used by the building's inhabitants. Similarly, they note a recurring pattern of wolf paws in the B.65–B.56–B.44 sequence.

There seem to be two main types of house-based history-making that occur at Çatalhöyük. The first involves repetitive practices in which the same activity occurs in the same place in a building over time. The second involves the curation and retrieval of objects from earlier buildings and their deposition in later buildings.

As regards the first type of history-making, it is important to distinguish the continuity of social practices from continuities produced by material constraints. The habit of building houses exactly onto the firm foundations of the walls of earlier tightly packed buildings meant that house buildings got 'stuck' with a particular plan that continued through time. But in other cases, the repetition of the layout of activities in houses is too great to be determined by house shape, and it may have been produced by discursive and non-discursive routines (Hodder and Cessford 2004). As an example, a heavily eroded B.59 was excavated above B.60. The B.59–B.60 sequence had much

strong evidence of specific and exact continuity of layout, including positions of support posts. A figural wall painting in B.60 was in the same location as red painting on the equivalent wall in B.59. There is also evidence of continuities in overall house and midden practices. For example, autocorrelation analyses conducted by Mazzucato (2013) show that cold and hot spots of higher and lower densities of finds exhibit some degree of continuity through time. In particular B.59 was recognized during excavation as low in find densities, but the analysis shows that B.60 directly above it was also low in density, as was the neighbouring midden Sp.60. As another example, Mellaart (1967) found pairs of leopards repeated in consecutive levels VII and VIB on the north wall in building E.44, as well as repeated vulture paintings in his 'Shrine 8' sequence.

The second type of history-making involves the curation and handing down of objects. In B.1, a pit was dug down to retrieve an installation or relief from the west wall of the main room (Cessford 2007). In the 65–56–44–10 sequence mentioned above, Boz and Hager (2013) found, on the basis of matching human teeth to mandibles, that bones from a burial in Building 65 had been retrieved and redeposited in a grave in the following Building 56 – a clear case of house-based history-making.

So the history house hypothesis centres on the evidence at Çatalhöyük for two forms of history-making. There is also much evidence at the site for the circulation of human body parts, including skulls and mandibles of men and women that were removed, circulated and deposited (for example in other graves or in foundation pits for support posts in buildings – Hodder (2006)). Since some buildings have up to 62 burials while others have few or none, it seems likely that the houses with many burials acted as preferential burial locations for the inhabitants of other buildings; it is also relevant that some of the burials in buildings with larger numbers of burials are secondary. Houses with many burials may have been important in establishing corporate relations beyond the individual house. I argued in 2006 that one function of the construction of histories may have been to create genealogical links to ancestors buried beneath floors. But to talk of 'corporate kin groups' (Carleton *et al.* 2013) is perhaps to take the evidence too far. Biodistance studies based on dental morphology of the human remains (Pilloud and Larsen 2011) from Çatalhöyük show that biological affinity played only a minor role in interment location. To some degree those that were buried in houses were 'practical' rather than biological kin. The people buried in a particular building may have included adoptive, foster or fictive kin held together by memory and history-making. It is also possible that those buried in a building did not live within the 'house' of that building; it is possible that burial location was part of the negotiation of social and economic relations between households after the

death of one of its members. On the other hand, the evidence for some degree of distinct diets associated with those buried in buildings (Pearson 2013) at least suggests that the group that ate together also was buried together. Often this co-eating, co-burying group was larger than an individual building – thus a social ‘house’ consisted of more than one building.

Mills (2014) has argued for the importance of a wide range of sodalities that linked individuals and individual houses at Çatalhöyük. So, rather than describing corporate kin, or kin groups, recent research has focused on complex cross-cutting networks on a diversity of planes. Indeed, in the initial account of history houses, Hodder and Pels (2010) do not mention corporate or kin groups. There is little mention of kin at all since the focus is more on the political economy of history houses and on the establishment of authority through managing histories. So I would not argue today that “the corporate kin-group was the main form of socioeconomic organization” (Carleton *et al.* 2013: 1816) at Çatalhöyük, but I do think that if defined so as to include non-biological kin, the corporate kin group was one mechanism among many for creating cross-cutting ties. These other mechanisms include co-eating, neighbourhoods and sectors, co-production, and participation in a wide range of rituals (Hodder 2014c). The history house hypothesis can be clarified to state that the burial of people below the floors of repeatedly built houses played a part in creating social networks at Çatalhöyük. This interpretive statement is based on the claim that burials are preferentially concentrated in houses that are repeatedly rebuilt on the same footprint. It is also based on the claim that there are too many burials in some buildings and too few in others for the burials in a building to be directly correlated with the inhabitants of that building.

Constructing a test of the history house hypothesis

Hodder and Cessford (2004: 36) argued that there is a “clear link between houses with many burials and houses that are replaced through many levels”. Carleton *et al.* (2013) have cast doubt on the hypothesis that such houses were important parts of the social fabric at Çatalhöyük. But in my view they used an inappropriate test and used poor and out-of-date data derived from Mellaart rather than from the new excavations. As I will show below, if the new data are used the hypothesis gains some degree of confirmation despite the need for larger sample sizes.

It is important to recognize change through time. The highest frequencies of burials occur in the middle levels (around 6500 BCE in South N and O), linked to a marked rise in building elaboration (Düring 2006) and increases in fertility

(Larsen *et al.* 2013) and overall settlement extent and density. House continuity is well established from the start of the occupation at the site, and indeed there are earlier sites in central Anatolia, such as Aşıklı Höyük in Cappadocia (Özbaşaran 2011) with even more marked columns of houses repeatedly built on the same footprint. Düring (2006) has shown that in the upper levels at Çatalhöyük the degree of continuity between houses declines and this has been linked to greater economic independence of houses, greater spacing between houses, and lower population densities (Hodder 2014a). The factors leading to high burial numbers and house continuity differ. History houses occur in both the lower and upper levels; they occur whether there are many burials in a phase or there are few; they occur whether there is much continuity between phases or little continuity.

According to the history house hypothesis, buildings with larger numbers of burials should occur in longer strands of rebuilt buildings. Combining current data with Mellaart data that have been verified in recent excavations, it is clear that some buildings were rebuilt on the same footprint at least six times whereas other buildings were never rebuilt on the same footprint. The numbers of buildings in stacks shown in [Table 14.1](#) are minimum numbers. In many cases excavations have not found the lowest building in a stack, or upper buildings in a stack have been eroded off the mound. There are limitations also regarding the number of burials found in buildings in which the occupation deposits have been fully excavated. The burial process at Çatalhöyük was complex and the current project has recognized a range of human bone deposition categories: primary, secondary, tertiary, primary disturbed, primary disturbed loose (Boz and Hager 2013: 415). The ‘observed MNI’ (minimum number of individuals) figures shown in [Table 14.1](#) are based on an examination of the archaeological context in which the bones were recovered and on the determination of age, sex and number of duplicating skeletal elements. The ‘observed MNI’ does not normally count bones from tertiary or primary disturbed loose categories (Boz and Hager 2013: 416). Building 1 is unusual in its large number of burials stretched over several phases, and in its larger number of secondary burials.

23
63
29
32
53
39
75
26
32

Table 14.1 The maximum number of burials in a house or house sequence and the minimum number of houses stacked on the same footprint at Çatalhöyük. The identifier is the number given to a house by the current project or the number given to one of the buildings in a stack of houses

Figure 14.1 shows the covariation between the number of buildings stacked in a sequence and the maximum number of burials in a building in that sequence. Overall there is a tendency for larger numbers of burials to occur in buildings that are part of longer stacks. The correlation coefficients are not high, ranging from a multiple R^2 of .398 if the outlier Building 1 is included, to .596 if it is excluded. Since the data are not perfectly normally distributed, Figure 14.1 shows a log transformation, with a multiple R^2 of .579. The p -values are all significant ranging from .008 to .001 to .001, respectively.

While there is thus some support for the history house hypothesis given current data, fuller confirmation must await further excavation so that the lower sequences of building stacks can be explored and complete stacks established. The numbers of burials in buildings are also the result of numerous factors other than the number of stacked buildings. For example, a recent analysis based on current research has confirmed a statistically significant link between building elaboration and numbers of burials, as initially suggested by Düring (2006). There are also changes through time, with the highest concentrations of burials occurring in levels South M, N and O, equivalent to Mellaart's levels VI and VII (Ibid.). Further work is needed on a larger sample size to explore the intersections between these different variables.

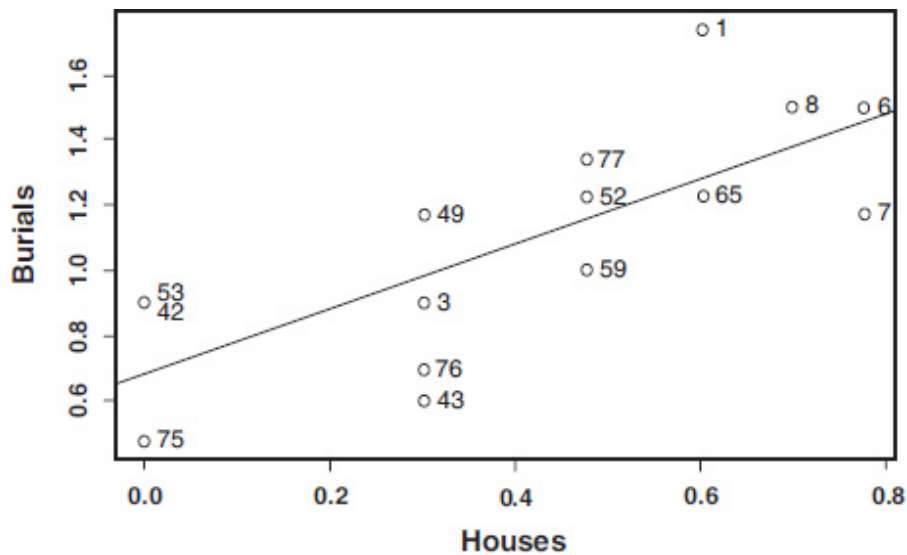


Figure 14.1 Relationship between the maximum number of burials in a house or house sequence and the minimum number of houses stacked on the same footprint at Çatalhöyük



Figure 14.2 Defaced bucranium found submerged beneath floors in Building 89 at Çatalhöyük



Figure 14.3 Burial and other pits in Building 17 at Çatalhöyük

While there is evidence for repetitive practices and the circulation of objects in houses at Çatalhöyük, the scale of this history-making and network building indicates that it must have been competitive, with buildings vying for affiliations and historical depth. As one goes through the mid part of the sequence of occupation at the site, one sees some houses amassing more elaboration and more burial (Düring 2006). As an example, in the North Area of the site Building 52 underwent a long series of enlargements and elaborations. At one point a small bench with wild sheep horns inserted along its length was replaced by a much larger bench with wild bull horns inserted along its length. In this later phase 13 wild bull horns were stacked above a bucranium (plastered bull's cranium) in a niche in the western wall. The number of rooms and burials also increased. The sequence suggests aggrandizement in terms of the amassing of histories (the bull horns resulting from baiting, killing and feasting on wild bulls). In other houses one see the forgetting of like events and histories. For example, in the South Area, an in situ but badly damaged bucranium was found in Building 89 (Figure 14.2). This was of particular interest because the floor replasterings had gradually submerged the bucranium. The bucranium had been defaced and then had sunk into the floor as the floor was raised around it. Mellaart too had found bucrania that had been allowed to sink and partially disappear as plaster layers were added to the floors (in his 'Shrine 10' sequence).

In the South Area, Building 17 has now produced a very large number of burials (Figure 14.3). It is telling that Building 17 is the base of a sequence of

elaborate buildings that Mellaart called 'Shrine 10'. In Building 6 above Building 17 we again had found large numbers of burials, as had Mellaart found in the yet later buildings in this sequence in his Level VI. Thus this sequence of buildings had always maintained its role as a focus for burial. Just to its east, however, is a stack of smaller buildings in which there are never many burials. Mellaart found a pair of leopards on the west wall of the main room of this building, and we have continued to excavate the building as Buildings 43, 160 and 161, going downwards in the stack. But this building had never managed to attract as large a number of burials as its neighbour.

Conclusion

There are numerous difficulties in establishing the number of buildings stacked above each other at Çatalhöyük, and in establishing the numbers of burials in buildings. As noted earlier, there is a need for further excavation and analysis in order to determine whether larger numbers of burials only occur in buildings with long histories. Despite initial positive evidence of covariation between these two variables, the history house hypothesis remains a hypothesis to be tested. Nevertheless there is much evidence for the circulation of objects through time and the amassing of histories at Çatalhöyük, and the same can be said for repetitive practices throughout the Epipalaeolithic and Neolithic in Anatolia and the Middle East. There are also clear differences between houses that manage to act as nodal points in networks based on history-making and those that do not.

In a number of cases in the Middle East, for example at the Natufian site of Eynan, burials appear to play a key role in the location of houses. In some cases at Çatalhöyük it is as if the burials rather than the houses are primary. For example in Building 132 in the North Area, a large number of burials was found in the north-east corner of the main room. These, however, were all dated to the period after the abandonment of the building. There is much evidence of wall collapse, decay and rebuilding in the later phases of use of this building (again suggesting that a process of 'forgetting' was taking place). After a period of time in which the north-east of the abandoned building was used for refuse deposition, a series of burials were interred. These were placed before and during the foundation of Building 77 that was built above Building 132, and it was the north-east corner that was to become the centre of burial and ritual elaboration in Building 77. It seems, then, that Building 77 was constructed over a cemetery located in the north-east corner of the abandoned Building 132. A similar process has now been found in a number of cases, such as the plastered skull placed in a foundation burial in Building 53, and the

cemetery found beneath the 65–56–44–10 sequence of buildings.

At times then it seems as if, rather than burials being placed in houses, houses were built to house burials or to otherwise remember them. Whatever the specific relationship between houses and burials, it is clear that ‘history wars’ are a characteristic of these Neolithic communities, both in terms of tensions between public ritual buildings and individual houses, and in terms of the competition between houses. Remembering and forgetting were clearly social processes that produced and undermined social networks. Time and space were joined together through history-making in that the spatial arrangements of social groups were produced through ties to apical points such as ancestors, public buildings and houses. For archaeologists it is clear that stratigraphies as well as spatial distributions are to be interpreted in social terms (McAnany and Hodder 2009).

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Epilogue

Saluting a renamed prehistory

Penelope J. Corfield

‘Prehistory’ is a positively unhelpful term. It implies that the very lengthy early millennia of the human experience are somehow not ‘real history’, constituting no more than a prelude to the ‘real deal’. Yet these years are actually foundational.

That point is no doubt one which all practitioners in the field known as ‘prehistory’ highlight in their opening lectures or first chapters. Terminological criticisms have long been voiced. Custom and usage, however, still sanctify the use of this unhelpful and misleading phrasing. It has now prevailed for over a century. The old nomenclature referring to a period known as ‘prehistory’ (1871), studied by ‘prehistorians’ (1893), pervades in academic departments, research institutions, learned societies, job descriptions, teaching courses, examination papers, academic journals, books, blogs, conferences, publishers’ preferences for book titles and popular usages – let alone in scholars’ self-definitions. Little wonder that updating is not easy.

Nonetheless, this essay, written by a frank friend, calls for the systematic renaming of ‘prehistory’ as ‘primeval times’. In detail, the ensuing discussion analyzes: first, the case for an alternative terminology; second, the shifting intellectual context which has generated the re-emergence of Big History – which means that the long millennia conventionally known as ‘prehistory’ are now being absorbed into a much bigger and longer history of the cosmos; and third, the case for integrating various key discussions from primeval times into longitudinal themes which are relevant to historians of all eras. Why confine big debates about the fundamentals of human life into an outmoded intellectual box named ‘prehistory’?

A prompt to such thoughts was provided by a casual visit, in summer 2016, to the ancient burial tomb known as Arthur’s Stone, high on a ridge in

Herefordshire between the Wye and Golden valleys. It's a very modest monument, today guarded by English Heritage. It has never been excavated (Sant 2000: 14), and it has become considerably dilapidated since its first construction in c. 3000 BCE (For dating style, see Corfield (2007: xviii)).



Figure 15.1 Arthur's Stone, Herefordshire, constructed c. 3000 BCE

Source: Photographer Tony Belton, 2016.

Yet while it began in what is conventionally known as 'prehistory', the Stone has great diachronic (through time) resonance. At some stage long before the 13th century ce, the monument, like many other stones and relics, became associated in popular legend with the feats of King Arthur. (Did he win a battle there, rumour speculated, or slay a giant?) The site then witnessed real-life dramas. In the 15th century, a knight was killed there in a fatal duel. And in September 1645 the embattled Charles I dined at the Stone with his royalist troops. Perhaps he intended the occasion as a symbolic gesture, although it did not confer upon him sufficient pseudo-Arthurian lustre to defeat Cromwell and the Roundheads.

For nearby villagers in Dorstone and Bredwardine, the site was also a midsummer venue for popular festivities, dancing and 'high jinks'. This long-standing tradition continued until well into Victorian times. As a sober counter-balance, too, the local Baptists in the 19th and 20th centuries organized an ecumenical religious service there each June/July. Implicitly, they

were acknowledging the Stone's sacral nature, whilst simultaneously purging its pagan associations. With great research serendipity, I met by chance there a local resident who recounted her memories, as a child before World War II, of joining her schoolfellows to sing hymns at the site each midsummer (corroborated by other local sources). This experience and later visits confirmed for her the special nature of the place. Thus throughout its 5,000 years of existence, Arthur's Stone has had multiple meanings for the witnessing generations (Grinsell 1976; Beckensall 2006). It's very old but it cannot be confined into a historical antechamber. And the same point applies to all ancient monuments, many of which are much bigger and more famous. They are all prompts to full diachronic analysis, and are open to exploration as such.

Renaming 'prehistory'

One common definition of 'prehistory' is the prolonged period of time from the advent of *Homo sapiens* some 200,000 years ago to the advent of literacy in Mesopotamia some 5,200 years ago. However, since literacy appeared at different dates in other cultures in other parts of the world, 'prehistory' is also used to refer to a stage of history, as well as a period of time. There is no universal chronology that applies across the globe (Finneran 2007: 33). That flexibility gives the concept of 'prehistory' a certain ambiguity: is it a stage or an era? And more fundamentally, is it well named in either context?

In recent years, the quality of scholarly research into 'prehistory' has become impressively great. The absence of written records has stimulated ingenious methodologies which combine invaluable insights from archaeologists, anthropologists, palaeontologists, geneticists, climatologists, and 'mere' historians (Fagan and Durrani 2016; Gamble 1993; Renfrew 2007). Experts borrow freely, as needed, from very variegated disciplines. That multi-stranded approach is now relatively common across all historical studies – whether the discipline of history be viewed as purely one of the humanities or as one overlapping with the social sciences. Eclecticism rules (contrast Tosh 2010; Trigger 1968). Multi-faceted approaches are now common – even commonplace. Holism is admired. Both subjective and objective viewpoints are alike surveyed, combined, and critiqued.

But such radical initiatives in the field of 'prehistory' have not yet extended to updating its name. When definitional terms dating back to Victorian times are challenged, especially by outsiders, there is often group resistance to change. Familiarity, inertia and institutional embeddedness make the case for continuity, which is in itself a powerful force. Similar resistance, incidentally, is

encountered by parallel attempts at rejecting the over-simplified categories of 'ancient', 'medieval', 'renaissance', 'early modern', 'modern' or even the elusive – and now fast evaporating – 'postmodern' stages of history (Corfield 2010). Those who do reject the old terms and definitional concepts often find the decision liberating. Yet so far the weight of collective usage, bolstered by institutional practice, is proving hard to shift.

Of course, it's always relevant to ask: what's in a name? Scholars sometimes argue that the descriptive tag of any given era does not matter, as long as its contextual application is generally understood. Furthermore, some urge specifically that a problematic terminology functions as a helpful heuristic device. It enables experts to start their courses and books by amusingly dissecting and rejecting the implications of the headline name of their subject.

And yet there are limits to the value of any terminology, if it is outright nonsensical. To repeat, naming a period or stage of development as 'prehistory' implies that it is but a prelude to and, by implication, a feeble, pettier version of the 'real thing'. Yet everything that happened before the advent of writing is as much part of the collective human experience as everything that has happened and is happening afterwards. Naming, far from being an optional extra, is fundamental to understanding rightly.

Already, much older references to 'primitive' history have been jettisoned by scholars. That condescending adjective misleadingly implied a linear development along a qualitative line, whether (for optimists) from primitive savagery advancing towards civilization or (for pessimists) from primitive simplicity degenerating into decadence (Zerubavel 2003). So it's now time for a further update. 'Primitive' history has been abandoned, as a historical curiosity. 'Prehistory' should similarly disappear.

These points now have a further practical salience. Since 2010, a number of experts from the humanities, social sciences and sciences have been working together on what is known as Big History. It has already generated a number of assertive textbooks (Christian 2004; Spier 2010). And it is supported since 2010 by an international learned society (www.ibhanet.org). Big History really thinks big. It takes as its focus either the entire history of the cosmos, from the start to the present day, or at very least the entire history of Planet Earth. As an approach, it marks the return of the diachronic with a vengeance. In this new intellectual scenario, the advent of the species of *Homo sapiens* is already a long way down the chronological line. The years before human literacy do not constitute a preliminary 'prehistory', before things begin to happen – but instead form part of a much bigger, longer and even more epic process of cosmic and/or global development.

Existing subject specialisms, it should be stressed, are by no means bypassed or rendered obsolete by the Big History project. The in-depth research

contributions of the precise sciences (astronomy, cosmology, physics, chemistry, biology, genetics, zoology, climatology, geology), the social sciences (anthropology, geography, environmentalism, palaeontology, archaeology, demography) and the humanities, including notably the history of all regions and eras, are needed more than ever. Otherwise, Big History risks becoming schematic and far too superficial. But its advent is one of many signals that long-term diachronic frameworks are currently – and rightly – becoming re-appreciated as integral to the quest for historical understanding. Synchronic immersion on its own is not enough.

Any non-specialist may have personal views on how ‘prehistory’ should be renamed. But real changes will only come from experts who study the field in depth. They bear the heat and burden of the day. However, since updates often come insidiously, out of a variety of options, it’s worth considering some alternatives.

Ideally, a descriptive term which is positive in its own right, and not defined as ‘pre’ or ‘post’ anything, would convey the clearest message. The ‘tool-making’ era might, at first stab, seem relevant here, since tool-making was such a distinctive feature of early human development. But that suggestion clearly doesn’t work. Humans have continued to make old and new tools, of greater or lesser complexity, in all eras, adding new inventions while incorporating the best elements from the traditional repertoire. Hence the ‘modern’ motor car travels on wheels, whose first invention dates back to ‘prehistoric’ times.

Other possibilities include ‘pre-recorded’ history, meaning specifically the era before written records. However, that usage too is misleading. It obscures the fact that records of the past do not come purely in written form. Ancient monuments, like Arthur’s Stone, are visible and tangible sources of information in their own right. Indeed, there are so many ingenious ways to gain understanding, from radiocarbon dating, to statistical modelling, to excavations, to DNA-profiling based upon ancient teeth and bones, to the (much-debated) analyses of cave art and so forth, that written records no longer constitute the sole research grail.

Further circumlocutions, such as references to ‘pre-literacy’ or ‘pre-writing’, are explicit about historical sequencing but, alas, misleading in everyday usage. It’s hard to imagine scholars welcoming the label of ‘pre-literacy historians’. It makes them sound as though they are either personally deficient in staple skills – or, alternatively, specialist experts in language acquisition among the young. The same applies to ‘pre-writing’ in use as a single historical descriptor. However, references to the advent of literacy can be useful in longer descriptions. It is the ‘single name’ problem which poses the greatest challenge.

‘Foundational’, for example, says something accurate about the years before

societies learned and shared the art of reading and writing. It has solid meaning. And it does not imply either foundational vice or foundational virtue. However, the term is not sufficiently self-explanatory. 'Foundational history' seems too much like a first-year introductory course.

Indeed, all single-quality adjectives risk seeming too simplistic when applied over millennia that saw many complex transitions. That's why the once common references to the Stone Age, which still appear in casual parlance, became greatly sub-divided with further research. Time-markers were one way of marking distinctions. Thus there are references to the Palaeolithic (Old Stone Age), Mesolithic (Middle Stone Age), and Neolithic (New Stone Age). But those sub-divisions became disputed in turn. Another variant refers to the advent of metal-working, which appeared historically before the advent of writing. So rival usages such as the Bronze Age and Iron Age were then introduced. However, these too were disputed in terms of chronology – and did not apply equally in all 'prehistoric' cultures around the globe. It's hard to find definitions that embrace variety but without generating further confusions.

Perhaps referring to these pre-writing years as 'early history' or the 'early millennia' would suffice. Such terms still imply a temporal succession, but without any implication that one stage is more important or better than another. But 'earlybird' usages lack romance. They are also liable to promote confusion, if 'early' history is then followed by the 'ancient world' of classical Mesopotamia, Egypt, Greece, Rome and so forth. What is seen as 'old' or 'new' depends very much on the vantage point of the time traveller. 'Ancient' itself is another ultra-flexible term, which is loosely applied to many different past periods, rather like 'classical', and is also overdue for reconsideration.



Figure 15.2 Clay figures of seated man and woman, Cernavodă (Romania), fired in c. 5000 BCE: primeval but not 'before history'

Source: Image in public domain.

My own preference for the era before literacy is 'primeval', or even 'primordial'. These are Latinate terms for things that are very, very old. 'Primeval' in particular has the ring of primacy and antiquity, but without implications of 'primitivism' or backwardness. True, scholars of 'primeval history' probably won't want to be called 'primevalists'. Yet, after all, there is no obligation for scholars to be named after their specialist fields. A number of historians of later eras, like myself, reject being pinned down as 'medievalists' or 'modernists', let alone the vanishing 'postmodernists'. Those period labels are increasingly disputed in their dates and meanings. Instead, there's merit in big inclusive names, like 'historian' or 'archaeologist'. Such broad terms give practitioners free rein to look analytically up and down the centuries, as their investigations require.

Returning to an ultra-protracted Big History

Putting all the eras together entails a welcome end to the undue fragmentation of historical research. In-depth surveys are now being complemented (not replaced) by a growing interest in long-swing analysis. It amounts to a positive

‘historical turn’ (Armitage and Guldi 2014; Corfield 2015). For much of the 20th century, it is true, there was a swing among many historians and social scientists to give analytical priority to space over time. Or to put the same point another way, there was a tendency to prioritize the synchronic then-and-there (events in one location) over the diachronic flow (whether deep continuities or long-term trends). There were reasons for that shift, as there are now reasons for righting the pendulum.

Einstein’s intellectual impact was important in generating the changing intellectual climate in the early and mid-20th century. After formulating his new theories of relativity, he pronounced that “Time is no longer absolute”. And Hermann Minkowski expanded the point in 1908 when assessing the impact of Einsteinian physics: “Henceforth Space by itself, and Time by itself, are doomed to fade away into mere shadows, and only a kind of union of the two will preserve an independent reality” (cited in Corfield 2007: 9). Such dramatic pronouncements encouraged a quizzical attitude towards temporality itself – an attitude which spread gradually both among intellectual circles and within Western popular culture. ‘Everything’s relative’ was the catchphrase that registered scepticism about all old certainties. If the space-time continuum, in Minkowski’s summary phrase, could bend or become warped in certain specific contexts, then old-style linear models of history could be rejected as naïve and simplistic. Confidence in ‘time’s arrow’ was shaken.

‘Grand narratives’ or big-picture histories (also known as meta-narratives) continued to appear for some time. Historians did not immediately switch wholesale to micro-studies. Oswald Spengler’s gloomy *Decline of the West* appeared in 1918 (revised 1922/3), and Arnold J. Toynbee’s 12-volume account of the cyclical rise and fall of world civilizations followed in stages between 1934 and 1956. Yet these works were the last of their kind to command great heights of public adulation, excited commentary and earnest refutation. Toynbee, as the professional historian of the two, was seen as the most impressive. Nonetheless, his reputation, after reaching its zenith in the mid-1950s, has since collapsed dramatically. That shift has happened in part because Toynbee’s account of historical change as a process of ‘challenge-and-response’ seems, upon close inspection, to be more of a description than an explanation. But his reputation also withered because grand, sweeping histories in his style were falling out of analytical favour in many intellectual circles. That sceptical response was especially sharpened after World War II.

Western beliefs in the ‘march of progress’ were undermined by mass experiences of the devastation caused by total warfare in the 20th century. Above all, the emerging revelations after World War II of the scale and infamy of the Holocaust sealed the end of easy optimism that ‘all was for the best’. At the same time, a gradual process of erosion was similarly undermining the

Marxist faith in history as one of non-stop class struggle (known theoretically as ‘dialectical materialism’), which would lead inexorably to a proletarian-communist revolution. Revelations about the blood-thirsty nature of Stalinist rule were then supplemented by Russia’s heavy-handed suppression of resistance in Hungary (1956) and later Czechoslovakia (1968). Long-term trends turned out to have a continuing capacity for surprise. The world’s first communist revolution, which was to lead, in Engels’s euphoric phrase, to a new Kingdom of Freedom, had not unfolded as promised. It seemed that neither marching towards ‘progress’ nor getting there by revolutionary leaps had worked.

Hence it may have seemed for a time more plausible to shrug and to see history as ‘one damned thing after another’ (with a stress on the adjective *damned*) than to formulate a big new alternative. Perhaps wiser too, as some academics thought for a while. In-depth micro-studies became all the rage, especially in the 1970s and 1980s. In this context, there was no intellectual pressure to reunite ‘prehistory’ with the rest of the subject. If there was no long-term pattern to history, it did not matter whether the foundational stage of human development was either one of primitive barbarity or of primitive simplicity.

Doubt rather than certainty became the new intellectual mood music in the West in the 1980s and 1990s (although of course, there were always dissentient voices). Above all, postmodernist theories, influential with many disillusioned left-wingers, stressed the problematic nature of all knowledge about the past (Jenkins 1991). One central tenet of this attitude was an “incredulity towards meta-narratives”, as proclaimed by the French social philosopher Jean-François Lyotard (1979, 2004). Time’s arrow did not point in any specific direction, it seemed.

Taking scepticism yet further, Lyotard’s protégé the literary destructionist Jacques Derrida asserted that temporality itself has no independent reality. For him, time is a concept which “belongs entirely to metaphysics”. (Clearly, that formulation was not meant as a compliment.) As his preferred alternative, Derrida evoked an atemporal spatiality, which he named as *khôra*, borrowing a Greek word for a site or receptacle (Hodge 2007: ix–x, 196–206, 213–214). Unsurprisingly, however, the plan by an adventurous architect Peter Eisenmann to build, for public display in a Paris park, a physical model of this nebulous concept, depicting space without time, came to nothing.

Instead, the negativism of postmodernist theory was eventually followed by a justified intellectual recoil. Historians en masse, while tending to reject grand narratives, had never gone to the other extreme. They did not accept that the past has no meaning, or that studies of history are purely subjective accounts. Doubts need not be universal. Paradoxically, the postmodernists’ assertion that

an old era of so-called modernity had been superseded by their new age of sceptical 'postmodernity' displayed their own confidence that the course of history could be deciphered and, furthermore, proclaimed to be favourable to their own views. In other words, their critique of meta-narratives did not inhibit them from producing a new meta-narrative of their own. Belief in some pattern to the long-span unfolding of historical events was not so easily jettisoned.

Above all, it can now be seen that the 'heresy' of time denial, which recurs as a persistent minority view among some philosophers, social analysts, and physicists (Barbour 1999: 324–325), ignores the real insights of Einstein. His physics did not reject the phenomenon of temporality or imply that there were no absolutes in the physical universe. Instead, the deep implication of Einsteinian physics is that there is no need (and no serious chance) to opt between time and space. They form one continuum. Together, they frame the unfolding cosmos. Minkowski named their union as space-time. A minority of commentators, myself included, prefer the terminology of time-space, as giving priority to the dynamic properties of time. Perhaps the perfect collision of the two words into one portmanteau noun (in English) would suffice, making the ungainly '*sptimace*' (Corfield 2007: 16).

Be that as it may, the point is that time and space – history and geography – are all one. Thus the intellectual shock waves, emanating from Einsteinian physics, plus the collapse of some famous grand theories of history, have now been absorbed. The outer bounds of extreme scepticism have been encountered and rebutted. It's time instead to re-acknowledge space and time as inextricably yoked together in space-time, as they are (Holford-Strevens 2005). As a result, it is implausible to conceptualize about different forms of (as opposed to different ideas about) temporality in different eras. Diachronic long-span history is best understood within the continuous unfolding of space-time, co-extensive with both time and space. Long and short term are related. Hence, to repeat, the diachronic always remains within the synchronic and vice versa (Corfield 2007: xv).

Research becomes liberated by a return to the long term, as in practice eclectic historians have always known. Traditional sub-divisions of history into separate sections or stages can be adapted or subverted. Outmoded and unhelpful temporal or thematic bunkers can be overthrown. Research projects can take the form of either micro-studies or macro-studies or some interaction of the two, as the dictates of specific themes require. Even as protracted a period as that traditionally known as 'prehistory' can be re-examined with profit in whatever longitudinal frameworks are helpful.

Genetic history provides a pertinent example of the value of very long-run analysis. Studies of the human genome cover the entire lifespan of the human

species. During those millennia, adaptations arise along the way. These micro-changes then illuminate the complex history of human diasporas, intermarriages, genetic divergences and/or genetic convergences between regional populations, and inherited/acquired medical conditions, from the origins of the species until now (Cavalli-Sforza and Cavalli-Sforza 1995; Reich 2018).

The spatial range of such population studies is global. The periodization is protracted and ultra-inclusive. And the analytical outcomes are freed from prior assumptions about inevitable destinations. It appears that humans have always been globetrotters, as they remain today. And, it may also be added for good measure that they all constitute peoples within one worldwide biological race that can interbreed (as the definition of a species specifies), rather than represent a ranked hierarchy of separate races.

Reverting again prosaically to Arthur's Stone, its survival signals it as a persistent product of time, made manifest in space. It functions as both a spatial and a temporal marker. In that, it forms part of the perennial human interest in creating monuments and/or demarcating places of special significance, which continues today. At various times, Arthur's Stone has been a local focus for burial, ceremonial, religious, military and festive functions, as well as a modest venue for tourist visiting. Indeed, it was anciently associated with special walkways (Loveday 1998: 25–30 in Gibson and Simpson 1998), leading to and from the site. Possibly too Arthur's Stone was used as an astronomical observation point, in conjunction with other nearby stones (Watkins 1928) – a function which is claimed (and debated) in the case of many monuments. Certainly, it is likely that there were many linkages between this site and others nearby, known to archaeologists as the 'Severn-Cotswold' group of chambered tombs.



Figure 15.3 Close-up of Arthur's Stone, Herefordshire

Source: Photographer Tony Belton, 2016.

All such monuments, large and small, invite further probing, to understand their construction, uses, and changing through-time meanings (Renfrew 2007: 153–157). The legends attached to Arthur's Stone are modest, lacking in great drama. They do not equal the philosophical reverberations of a Shelleyan *Ozymandias*. Nevertheless, the mundanity of Arthur's Stone is in its way as much of an analytical challenge as the magnificence of a grand monument like Stonehenge. None of these sites was constructed out of the blue. They indicate the existence of societies capable of planning, organization, and technical accomplishment. It is significant therefore that, in the vicinity of Arthur's

Stone, even older flint flakes and arrowheads have been found in some abundance. Ingenious tool-making skills were necessary precursor capabilities for the later building of special monuments; and such skills were to put into action at many different places across the landscape. It's too schematic to insist upon specific stages in technical accomplishment. But there was certainly a degree of progression, learning, skills transmission and change. Defining all pre-literate societies simply as 'prehistoric' unhappily implies that they were all somehow static, in the antechamber to 'real' history. Instead, primeval societies were decidedly fecund: they contained deep continuities, but also many forms of change.

Longitudinal studies in turbulence, momentum, and deep continuities

Not only does space have its familiar three dimensions – length, breadth and depth – but time can usefully be viewed in terms of its own three interlocking dimensions. I define these as deep continuity (persistence), micro-change (evolution/momentum) and radical discontinuity or macro-change (turbulence). In their changing combinations, they constitute a process of historical 'trialectics' (Corfield 2007: 122–123, 211–216, 231, 248–249). But whether that particular invented terminology is acceptable or not, these three dimensions remain analytically applicable through time. Longitudinal themes demand longitudinal approaches.

Looking at these dimensions in turn: there are certainly plenty of cases of revolutionary macro-change (turbulence) or radical discontinuity in history (Corfield 2007: 89–112). During the protracted aeons conventionally known as 'prehistory', prime examples include the very arrival of *Homo sapiens* as a species. And after that, there were numerous other epic changes. Examples are the adoption of clothing; the taming of fire; the invention of tools; the refinement of tools and weapons with handles; the invention of the wheel; the arrival of speech; the advent of decorative arts; the formulation of burial rituals; the domestication of animals; the development of a calendrical consciousness; population fluctuations including survival during the Ice Age; the start of permanent settlements and farming; and, ultimately, the genesis of reading and writing.

None of these radical discontinuities is easy to date and decipher. Fascinating debates continue to simmer and at times to escalate, for example over the timing and causes of the advent of speech (Berwick and Chomsky 2016; Hurford 2007; MacNeilage 2008). And no changes were inevitable. On the other hand, they happened, in different circumstances in different parts of the

world. The wheel was invented and set to use in Mesopotamia from c. 4000–3500 BCE onwards, while in the different terrains of Central and South America the wheel long remained a decorative toy (Bulliet 2016).

Issues such as these highlight pertinent themes about human adaptability, including, topically enough, the human species' fluctuating numbers and variegated global distribution in response to changing climate conditions. *Homo sapiens* has always shown the capacity to innovate. Yet by implication the reverse was also possible. Why were there long periods without major transformations? Renfrew calls this “the sapient paradox”: if experts laud the intrinsic dynamism of *H. sapiens*, why did it take so many thousands of years for settled agriculture, known as the first ‘agricultural revolution’, to emerge? (Renfrew 2007: 84–85). In fact, the early millennia of human history also saw prolonged continuities, described as “many thousands of years when nothing seems to happen” (cited in Gamble 1993: 248). Hence historians of primeval times grapple to assess the balance between great upheavals and enduring stasis. Such big themes remain relevant to the continuing historiographical debates about the timing of both revolutions and failed transitions in all periods of history (among a host of studies, see Barham 2013; Gamble 2007; Jones 1988). Primeval case histories are particularly stark in their focus and thus particularly apt for general contemplation.

Further complicating the picture – and turning to a second distinctive historical dimension – is the fact that many changes were evolutionary in their unfolding (Corfield 2007: 57–79), even if revolutionary in their implications. Fast and slow transformations interact. Some historically great changes began as macro-shifts (the advent of language), which then became transmuted into micro-change (the evolution of language). Or at other times, the reverse happened: an accumulation of incremental adjustments (the use of tools) can germinate in the very long run something fundamental (technological transformation).

Either way, evolutionary change, being much more gradual and much less dramatic than revolutionary upheaval, remains a quiet force in history. Too often it is under-recognized. Historians, egged on by their publishers, find it more dramatic to discover ‘revolutions’. But there are plenty of examples of very slow and virtually invisible evolution. To take an example from human biology, the average size of the human jaw is, over very many millennia, getting smaller, increasing the chances of dental overcrowding. Partly in response to that, genetic mutation is producing a matching evolutionary response. Growing numbers of humans (myself included) are being born with fewer than the standard 32 adult teeth. In some parts of the world, such as in China today, that heritable condition, known as ‘hypodontia’, is found in over one-third of the population. As an evolutionary adaptation, it is far more

common than the reverse syndrome, of being born with an excess number of supernumerary teeth ('hyperdontia') (Brothwell 1963: 179–190). Moreover, the long-term trend towards smaller jaws and fewer teeth is highly likely to continue. But biology is not working hurriedly to reduce either human toothache or dental overcrowding.

Evolution, moreover, operates as a socio-cultural process as well as a biological function. Changes in human powers of communication provide a case in point. The arrival first of spoken, and later, of written languages did constitute epic transformations. But, after the first dazzling creativity, the refining and diffusion of new skills in communication proved to be a slow, incremental process, not least because children in every generation learn gradually. Hence the evolution of specific languages has taken millennia. And the process continues today. All living languages change relatively slowly in their deep grammatical structures, albeit much more rapidly in vocabulary and current usages. Consequently, the analytical challenge is to disentangle the intricate mixture of turbulence and gradualism, as slow adaptations often continue to embed macro-transformations once begun.

Broadly speaking, process changes are not only generated from within human communities but are also triggered from outside, through planetary variations such as climatic fluctuations. Human responses to the waxing and waning of Ice Ages are a case in point (Fagan 2009). These are clearly challenges/responses which, again, are not confined to any one era, but apply to the whole picture. Primeval case histories are thus particularly apt in highlighting the interlocking nature of rapid and gradual changes.

Complicating all these themes yet further, the missing third of the trialectical dimensions within time remains to be evaluated. If the power of evolution is often underrated by historians, then deep continuity (persistence, inertia) is habitually even more neglected (Corfield 2007: 26–48). Nevertheless, there is much evidence for its potency, which is often hidden in plain sight. (One indicator of the power of persistence has already been mentioned: the unwillingness of scholars to rename their period specialisms.)

Experts in primeval times have a particular expertise as analysts of continuity. As already noted, there were many long 'slow' millennia of human existence before the advent of literacy when transformations were generally (but not invariably) few and gradual. The contrast between those years, and the post-writing experience of relatively 'fast change' during the last 5,000 years is marked. That acceleration indicates how improvements in methods of communication, and the speed of information flows, trigger further innovations, whilst advancing the accumulating human stock of knowledge. Nonetheless, even amidst grand upheavals, far from everything changes. For instance, the art of human communication via pictorial signs remains

absolutely basic. To take just one example, very similar line drawings of the horse recur through time (Forrest 2016; Kenin 1974) – see [Figures 15.4–15.6](#). The everyday practice of drawing is thus found today in literate societies as much as from the very earliest times before the invention of writing. Little wonder that one analyst firmly attributes the advent of the ‘modern mind’ to the world’s oldest evidence of representational art (Cook 2013). ‘Modernity’ (which also needs redefining) is not a condition which applies only to ‘advanced’ societies but can be detected at any time.

Another fascinating example also comes from the lengthy history of non-speech communication skills. Initially, humans relied totally upon gestures, empathetic body language, expressive sounds, making marks, and the power of copying (mimesis). Moreover, even when speech and then writing were added, the old signalling systems were not discarded, but were retained alongside. People in all cultures today continue instinctively to use sounds and gestures to communicate. They don’t think twice about deploying such primeval skills. It is true that the specific forms of gesturing display many historic and cultural variants (Bremmer and Roodenburg 1991). But these semi-instinctive, semi-socially learned bodily signals remain an invaluable resource, usually forming a contrapuntal accompaniment to speech. Moreover primal gestures remain a vital resource for communication between peoples without a common language. The net effect is a layering of human skills, as both old instincts and culturally learned conventions coexist.

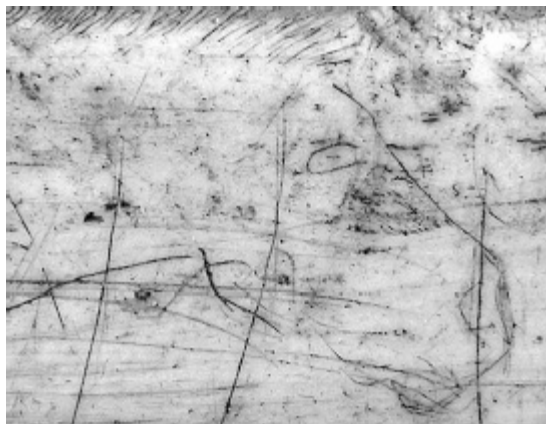


Figure 15.4 Horse profile, Creswell Crags Cave, Nottinghamshire, 12,000 BCE

Source: © The Trustees of the British Museum.



Figure 15.5 Horse profile, silver hemidrachm, Thessaly, 5th century BCE

Source: Image in public domain.



Figure 15.6 Horse profile

Source: Free icon from www.flaticon.com, 2017.

More than that, with the most recent technology-led shifts in quick-fire communications via social media, people are finding that the option of expressing personal viewpoints both instantly and anonymously is encouraging, in some quarters, unfettered expressions of deep and positively ‘primal’ emotions. Unrestrained fears, anger and hatreds are being voiced as lavishly as unqualified love, admiration and happiness. Yet sending online

messages is done without the crucial face-to-face element to which people are biologically and culturally accustomed. (Even Skyping does not permit the same interactivity as is generated by bodily presence.) Hence the social media can be operated without the social, cultural and legal regulations which have been developed over time to frame older processes of communication. The cacophony of voices on social media can be welcomed up to a point as venting the collective 'wisdom of the masses'. However, unfettered expressions of ferocity and rage constitute a distinct societal challenge (Reagle 2015).

Past experience suggests that humans will eventually find a way to cope effectively with the latest macro-change in methods of communication. Indeed, longitudinal studies tend to point encouragingly to the highly adaptive capacities of primeval societies. Humans constitute a species known for both problem-creating and problem-solving. But finding solutions is not necessarily a quick or painless process.

Various assertions have repeatedly sought to encapsulate the basic qualities of humankind. The botanist/biologist Carl Linnaeus began the taxonomy in 1758 by offering *Homo sapiens* (the knowing species). This collectively flattering term is now widely adopted – by humans. But other qualities have been highlighted too. Options range from *H. faber* (the tool-maker); to *H. loquens*, 1772 (the speaking ape); *H. ridens* (the only species which laughs); *H. religiosus* (the prayerful); *H. ferox* (the fighter); *H. ludens*, 1795 (the playful); *H. socius* (the sociable); and *H. economicus* (the rational economic calculator), even while that definition is rightly criticized as overdoing the rationality (which is assumed to point to one result only) and underplaying the effect of imperfect information flows. In addition, today's human has been slyly redefined as *H. zappiens* – a donnish joke saluting the arrival of the TV remote-control zapper (Veen and Vrakking 2006). Yet there is no one universally agreed characteristic. Instead, humans are multi-faceted – and adaptable.

Similar criticisms apply whenever singular traits are taken as universal. Humans are neither purely selfish nor purely altruistic. Equally, gender stereotypes, invoking the mythical 'Stone Age man' (and woman), are unconvincing. There is no 'pure', unbiased evidence on these questions. Instead, declarations on all such matters are rightly open to dispute (see Buss 2005, and attendant debates). The scanty evidence from primeval times does not warrant the assumption of one monochrome psychological profile, rather than a range of common characteristics, for an entire species.

What does persist is the quest (and need) to study all aspects of human biological and behavioural traits. These are not questions of which our species is likely to tire. Thus, again the evidence – or lack of evidence – from primeval times remains highly relevant here.

Coda: saluting primeval times

Historians, archaeologists and museum curators regularly confront the deep linkages between past and present. Questions both ethical and practical are particularly highlighted when debating the display of long dead human bodies (Williams and Giles 2016). These corpses are generated by the same lengthy human history, which stretches from primeval times until now. Due sensitivity is required, to balance respect for the dead with the need to share knowledge.

Things that happened long ago are not sealed away from contemporary times. All history is one. Complete with radical turbulence, evolution, and deep continuities too. Consequently, let's hope that foggy, misleading 'prehistory' gets renamed.

Nomenclature really does matter. Misleading names do mislead. The foundational pre-writing eras which launched, rather than antedated, human history, need a better and more resonant label. Farewell to 'prehistory'. Elements of long ago persist today. Let's instead salute the fascinatingly cross-time relevance of primevalism.

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